AN ASSESSMENT OF THE VALUE OF A TRAINING IN AUTO-HYPNOSIS TO THE PREGNANT WOMAN.

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CONTENTS.

INTRODUCTION.

"Hypnosis is one of the oldest of the medical arts.....it has developed from the ancient concept of supernatural origin, to the scientific theory and practice of today". Yet, although its history extends back almost to the earliest written records, hypnotism remains one of the unsolved problems of science. There are many theories as to its nature, but it can be described as a temporary condition of altered attention, the most striking feature of which is greatly increased suggestibility. It can be produced by various techniques employing rhythmic sensory stimuli, or suggestion, or both. In ancient Persia, Egypt and Greece hypnotic trances were employed by priests for healing purposes, for example in the "sleep temples" of Egypt. A papyrus, three thousand years old, exists describing hypnosis much as it is used today. Modern hypnosis, however, started in 1776 when Mesmer advanced his theory of animal magnetism in Paris. He believed that a strange fluid passed from him through iron rods to his patients, and cured nervous diseases directly, and other diseases indirectly. A commission was set up in 1784 by the French government to investigate the truth of his claims, and pronounced him a fraud, and Mesmerism fell into disrepute until in 1843 when Braid of Manchester contended that Mesmerism was entirely subjective, and renamed it hypnotism from the Greek ὕπνος, hypnos, meaning sleep. He stated that by its means physical and psychical effects might be obtained.
In 1886 Liebeault, who founded the Nancy school in France, developed the theory that suggestion was the key to hypnosis. About this time James Esdaile working in India performed three hundred major, and over a thousand minor operations under hypnosis analgesia alone. In 1886 Bernheim, a French physician perfected techniques for induction of hypnosis that are still used. In 1891 the British Medical Association committee, appointed to investigate the therapeutic value of hypnotism,

gave the opinion that "as a therapeutic agent hypnotism is frequently effective in relieving pain, procuring sleep and alleviating many functional ailments".

Many recognised scientists including Charcot, Pavlov, Babinski and Janet accepted the validity of hypnosis and used it. Brewer and Freud went further than symptom removal, using hypnosis to find the underlying cause of a patients' symptoms, and allowing them to re-enact their original experiences. This "abreaction" or release of emotion was called the "cathartic method". Later Freud developed his psycho-analytic technique and hypnosis was used less and less, until its revival in the first world war, when hypno-analysis was used by Hadfield and others for the treatment of war neuroses. Since then its use has been extended to many branches of medicine, and one of the fields in which one would expect a good result is in the field of obstetrics, where fear and tension often exist, ~~but~~ for a specific experience. In the suggestible pregnant woman there should be a good response to hypnotic suggestion that pregnancy and labour are essentially normal physiological events, which a healthy women should enjoy, and accomplish with ease, in the absence of obstetric abnormalities, and where the selective absence of pain, with preservation of other sensations, is desirable. Hypnotically induced analgesia in childbirth was first reported in 1831 by Foissac; others such as Dr. Cutter of U.S.A., Dr. Saunders of Bristol and Lafontaine of Geneva reported confinements conducted with little or no pain under "magnetism" in the ensuing years. Liebeault in 1866 also reported a series of cases conducted with varying success under hypno-suggestion. Twenty years later hypnosis began to be used extensively in obstetrics, and has continued intermittently since. There was a recrudescence of enthusiasm for this method in the 1920's after its successful use for the first world war neuroses. In 1938 DeLee stated "the only

anaesthetic without danger is hypnotism..... I am irked when I see my colleagues neglect to avail themselves of this harmless and potent remedy", and in the 1947 edition of DeLee's Principles and Practice of Obstetrics he states that, "hypnosis has been used in obstetrics for a long time and should be employed more often than it is at present, even if complete hypnosis is not resorted to, repeated suggestions can accomplish a great deal in labour for the relief of fear, as well as the pains of labour". In 1949 a leading article in the British Medical Journal (2) stated, "There is no evidence that in capable and conscientious hands, hypnotism, repeated as many times as is desired, carries with it any physical or psychological danger to the patient", and it goes on to say that, "Hypnotism might well be more widely employed than it is at present both as a harmless local anaesthetic and for the relief of psycho-neurotic symptoms". In 1955 a British Medical Association Sub-committee officially admitted it as, "a useful aid to the practice of medicine, minor surgery and dentistry". Since then its use has become much more widespread and acceptable, with recent discussions in many learned societies, including the Edinburgh Obstetrical Society and the Royal Society of Medicine. Baer (3) sums it up well by saying, "Hypnosis is a serious and useful science that should be in the hands of experts who understand its usefulness and its limitations". In obstetrics this recent interest is probably due to the fact that for the last forty years attention has been fixed on the physical aspect of pregnancy and labour in an endeavour to reduce the maternal mortality and foetal loss. Now, although we have not reached the irreducible minimum, the standard of physical obstetric care is uniformly high, and obstetricians have time to study the psychological problems of the pregnant women.

So many young primigravidae have had their minds filled with fears of painful and abnormal confinements by so-called friends, and

relations, that they approach labour with fear and dark forebodings which they are often unable to put into words, partly because they feel rather ashamed of these fears, and partly because the average busy hospital ante-natal clinic is not conducive to quiet discussion. Mothercraft classes help greatly to overcome ignorance and fear, and when these classes were started at the City Maternity Hospital in Carlisle ten years ago, there was an obvious improvement in the state of mind of the woman coming into the labour ward. There was, however, still too much fear and tension in certain groups of patients, particularly the elderly primigravida, and the parous patient who had had an unfortunate experience in a previous labour, and it was with the intention of trying to bring more optimism and pleasure into these peoples' pregnancies that this experiment with the use of ante-natal hypnotic suggestion, and training in relaxation was commenced.

Hypnosis is only one of the methods that have been used to try and prevent, or alleviate the pains of childbirth. Drugs of all types have been used, particularly since 1847, when Sir James Simpson first used Chloroform to relieve the pains of childbirth, in spite of much opposition from the Church and the public. The first woman, a doctor's wife, delivered with the help of Chloroform was so delighted with its effect that she called her unfortunate daughter "Anaesthesia"! Many other drugs have been tried with varying degrees of success and safety, but no drug has yet been found that will completely relieve pain without danger to the mother or child. The common analgesia drugs used are those given (a) by the oral route, such as Chloral, Bromide and the barbiturates, or (b) by injection, such as Morphine and Pethidine, or (c) by the rectal route, such as Paraldehyde and Avertin, (d) Inhalants such as Ether, Chloroform, Trilene, gas & air, and (e) caudal and spinal anaesthesia have also been tried. They are helpful, but all have disadvantages, the main one being that if

enough of the drug is given to relieve pain completely, the margin of safety is passed. The search for the perfect drug analgesic in labour continues. Because of this unsatisfactory state of affairs obstetricians have tried other means of relieving pain in childbirth and making labour more pleasant for women.

Grantly Dick-Read in 1933, first put forward his thesis of the fear-tension-pain vicious circle, and published two books "Natural Childbirth" in 1933 and "Revelation of Childbirth" in 1942, which have undoubtedly helped many patients, and have helped to focus the thoughts of Obstetricians on the psychological factors involved in childbirth, for psychology and physiology are closely linked and both are concerned in the pain of childbirth. Dick-Read was adamant that his results were not obtained by hypnosis, and that psychological removal of fear produced less tension, and resulted in physiological and muscular relaxation of the cervix and pelvic floor, thus reducing pain which he maintained was due to excessive muscular tension (4). Normally the sympathetic motor fibres and the parasympathetic inhibitory fibres to the circular muscle of the cervix and lower uterine segment, work in harmony with the sympathetic inhibitory and parasympathetic motor fibres to the longitudinal muscles of the upper uterine segment. With mental fear and tension this neuro-muscular harmony is disturbed and painless contractions become painful. He maintains that "Confidence, understanding and absence of fear are the essential factors for painless childbirth" and "the normal and natural result of this (fear) is that there is excessive tension, and soon the simple sensations of uterine contractions which have been misinterpreted by the thalamus as pain, have given rise to a neuro-muscular condition which actually causes real pain". Excessive sympathetic stimulation from fear also causes uterine ischaemia with pain from accumulated metabolites, and may cause foetal anoxia.

In Read's application of his theory he used three methods:-

(a) The didactic, or teaching of anatomical and physiological facts relating to childbirth.

(b) Physiotherapy, or muscle relaxation exercises, breathing exercises and lumbar massage.

(c) Psychotherapy, or suggestion to the sub-conscious mind, which he maintained was not hypnosis as "the depth of influence was different", but his description of the analgesic and amnesic states he produced makes one feel that unintentionally he was using hypnosis.

Many others have used Read's methods and modified them, in the U.S.A., on the Continent, and in Britain. Schultz bridges the gap between Read's method and hypnosis, by his method of Autogeneous training. (6) Others in recent years have felt that better results should be obtained by hypnosis, and have reported series of patients so delivered, for example, Abramson and Heron (7) Newbold (8 & 9) Michael (10) and Kroger (11) and Kline and Guze (13). In the Soviet Union Velvoski and his co-workers in 1949 propounded 'The psychoprophylaxis of the pains of childbirth' or more briefly 'The psychoprophylactic method'. This method does not aim at inhibition of the cortex as do suggestion and hypnosis, but rather on cortical activation by means of education, instruction, teaching and the use of pain-reducing procedures. He argues that hypno-suggestive methods are therapeutic methods producing analgesia, but as the pain of childbirth is not an illness, he rejects the need for therapy and instead stresses the need for prophylaxis. "The method of psychoprophylaxis is verbal analgesia based on the training of the pregnant women. It depends on words as therapeutic agents, and its basis is the use of conditioned reflexes studied by Pavlov and applied to obstetrics by Velvoski and Nicolaiev". The women are taught to lose the passive attitude in labour, they learn

what is going to happen and how to adapt themselves, and control the bodily changes which occur in labour. The method consists of two parts, the preparation ante-natally, and the labour itself. The preparation consists of examination, suggestion that pain is not inevitable, suppression of fear, pain reducing exercises, for example rhythmical respiration, abdominal effleurage, massage, postures and education. Six sessions are held from the 35th week of pregnancy to the 39th. In the labour itself there must be adequate obstetric care, a psycho-hygienic atmosphere and the maintenance of a good cortical tonus by explanation, properly used pain reducing procedures, and supervision of behaviour in the expulsive phase. The woman is never left alone in her labour. Velvoski claims analgesia by:- education → cortical activation (or excitation) which raises the pain threshold → prophylaxis. Lamaze in 1951 introduced the Russian system into France where it is used fairly widely, but with slight modifications. In Lamaze's adaption of Velvoski's method eight lectures are given (27) starting at the fourth month of pregnancy and in labour an assistant sits with the woman helping and encouraging her until the doctor's presence is required. Others are using the psychoprophylactic method in the Low Countries, Switzerland, Spain and Italy. Velvoski claims that the Russian method is essentially different from Read's in that Read's method is based on passivity and the Russian method on activity of the woman. Read's method leads to a state of inhibition and a lowering of consciousness, whereas the Russians claim in their psychoprophylactic method inhibition is not enough, muscular release is used to obtain an excitatory re-inforcement through a central activation. Also it is claimed that Read's method is 'Childbirth without fear' and Velvoski's 'Childbirth without pain'. However, both agree that 'the pain of childbirth is neither eternal nor necessary for the normal conduct of this normal

act', moreover it can be prevented.

The similarities between the two methods are far greater than their differences. Both try to avoid the hypnoidal state, but it is very difficult to be sure that this is avoided when the doctor-patient relationship is stressed, and voice suggestion plays a large part in the training. Most workers agree that hypno-suggestive methods produce more effective analgesia, and the Russian workers use hypnosis in particularly difficult cases. The problem of using large scale hypnosis is the lack of competent, trained practitioners, and the conscious and unconscious resistence of the public to any process involving the manipulation of emotion. It seemed, however, that if a safe, effective method exists to help women enjoy their pregnancy and delivery more, it should be used, and with this feeling it was decided to assess, personally, the efficacy or otherwise of training the parturient woman in auto-hypnosis. The results obtained in 70 women so trained are compared with 70 controls and with 70 patients given Read's method of education, and physiotherapy relaxation, and suggestion.

Hypnosis is perhaps best described as a state of increased suggestibility where the higher analytical cortical centres are inhibited, and suggestions are accepted and acted upon at the sub-conscious or thalamic level, and motor and sensory processes are altered to initiate appropriate behaviour. It is not natural sleep, nor is it unconsciousness. Its effects depend on suggestion, and on a mechanism of functional dissociation in the central nervous system. Pain appears to be perceived in the tissues but the noxious stimuli do not reach the pain receptors in the higher brain centres.

There are, of course, very many theories of the nature of hypnosis. The three main groups are the pathological (that hypnosis is a hysterical manifestation), the physiological (that a physical change occurs in the cerebral cortex, and that hypnosis is a conditioned reflex), and the

psychological theories (hypnosis being a state of exaggerated suggestibility), but the exact nature of hypnosis remains a scientific mystery, and a full discussion of the many theories are not relevant to this thesis. The various theories are critically assessed by Wolberg.(15)

The object of hypnosis is to give strong suggestions which might be rejected by the conscious patient. Such suggestions may be:-

(a) For symptom removal, for example, of fear of childbirth, of pain in labour, or bad habits such as insomnia, or hysterical symptoms, of asthma, idiopathic dysmenorrhoea etc.

(b) For hypno-analysis to uncover the cause of symptoms which the patient may not be able to discuss at the waking level, or even remember, except by age regression.

In obstetrics the suggestions are for symptom removal and reassurance; hypno-therapy should be undertaken by trained psychiatrists.

The depth of the trance achieved by the pregnant women should be as deep as she can achieve, as the deeper the trance the more effective the analgesia obtained in labour.

Hull (16) has summarised the work of a number of observers on trance depth, covering over 10,000 subjects and has found the mean percentage to be:-

10.48% cannot be hypnotised (by a particular person).

32.68% can achieve a light trance.

34.58% can achieve a medium trance.

22.26% can achieve a deep trance.

An easy guide to clinical assessment of depth of trance is as defined by Mason:-(14)

(1) Unhypnotisable. Failure to achieve involuntary cataleptic closure of eyes after three attempts of hypnotic induction, of fifteen minutes each, on three separate occasions.

(2) A light trance subject is one in whom involuntary cataleptic closure of eyes, i.e. closing with a jerky flutter can be achieved by hypnotic induction, but who fails to respond to further suggestions, after the application of deepening technique, lasting five minutes on three separate occasions.

(3) A medium trance subject is one who responds to hypnotic induction by going fairly rapidly into a light trance, i.e. in three to five minutes, and then responds further to the deepening techniques with evidence of increased suggestibility, as demonstrated by hand levitation and arm catalepsy, and some degree of analgesia, but this last is only partial, i.e. can be pricked by a needle without response, but a needle cannot be put right through a raised piece of the skin painlessly. Such a patient could have an episiotomy performed and the vaginal part sutured without a local anaesthetic, but would require a few cc's of Xylocaine for the perineal skin.

(4) A deep trance patient can make an area of the skin completely anaesthetic. A needle can be put through the back of the hand painlessly, and in labour a forceps delivery and repair of perineum can be done with no additional analgesia or anaesthesia, and in many cases major surgery, for example a Caesarean Section can be done painlessly.

(5) A very small group about 2% of patients can reach a very deep trance in which age regression occurs, i.e. the patient can be regressed to an earlier age level and encouraged to recall experiences that may be etiologically related to an emotional disorder.

This is not used in obstetric relaxation training, except in rare cases, for example in Case (1) (See P.107) where fear of injections caused the patient much worry, and age regression revealed the cause.

Description of technique used for
training pregnant women in the art of auto-hypnosis,
illustrated by a 16 mm. Colour film
with commentary.

The technique employed for training the pregnant woman in self-hypnosis is that of eye fixation to produce retinal fatigue; and progressive relaxation by voice suggestion, using monotonous rhythm; and post-hypnotic suggestion, as taught by Dr. A. A. Mason at the course I attended in Manchester in November 1958 of the Society of Medical and Dental hypnosis, and as described in his recent book. (14)

The trance is deepened by the patient accepting further suggestions, e.g. (1) hand levitation, (2) catalepsy of arms, (3) disturbances of cutaneous sensibility, such as hyperaesthesia of one hand and analgesia of the other.

Positive suggestions concerning childbirth are then given.

A post hypnotic suggestion of a better relaxation and deeper sleep at the next session is given, and then the patient awakened by counting five, with suggestions of awakening.

I do not use suggestibility tests as the first hypnotic session shows those who are really good subjects, but everyone can be helped to some extent, and it gives a poor subject even less self-confidence if she does not do well in the suggestibility tests.

Of the seventy patients given hypnotic ante-natal relaxation training none were unhypnotisable.

10 or 14% were light trance subjects.

40 or 57% were medium trance subjects.

19 or 27% were deep trance subjects.

1 or 2% were very deep trance patients.

The first dozen or so, who were all private patients, were taught individually in the consulting room, but as confidence and ability grew, and the needs and requests of a number of hospital patients became obvious, group classes of six patients at a time were started in the hospital ante-natal clinic premises on a Saturday morning. A group of six new patients were given the first half hour and then a group of six old patients.

The patients were asked to lie on mattresses on the floor of the ante-natal clinic. They took off their shoes and loosened any tight clothing. The room was warm, reasonably quiet, and ordinary lighting employed. First an explanation of the object of the relaxation classes was given, the words "deep relaxation" being used instead of hypnosis, because of the association of hypnosis with entertainment; if however any patient asked if this was hypnosis she was told it was "medical hypnosis"; then a full description of what was going to be done in each lesson given. Then any questions were answered. A summary of such an introduction is given below.

"The object of these relaxation classes is to enable you to

control your mind and body when you are in labour, so that you can rest and sleep with your mind, and at the same time let your relaxed body do the work for which it is constructed, easily and without pain, because pain is increased by muscle tension, particularly of the pelvic or lower body muscles, which if they are tight and rigid delay the passage of the baby out into the world, and make the labour painful and unpleasant. If you can learn to relax your mind and body completely, the neck of the womb should open up more easily and quickly, and the relaxed pelvic muscles will allow an easier and more comfortable delivery. To achieve this in the excitement of the labour room you need to practise it and become proficient in relaxation in the ante-natal period. Also if you lose your fear of labour, you will enjoy your pregnancy as you should do, so while you are relaxed I will explain to you why you should enjoy your pregnancy and even your labour.

To learn to relax I want you to make your body do as I say, making each part feel tired and heavy and relaxed until you feel warm, comfortable and relaxed, and your eyes close, and you appear asleep, although you will never lose conscicusness, you will always be able to hear my voice, and in the labour room the voices of the doctors and nurses so that you can obey their instructions.

Don't worry if you don't achieve very good relaxation the first time, you will improve with practice, and although some are better than others, everyone can relax to some extent. Now lie quite comfortably, fix your eyes on a spot above and a little behind you so that they are a little strained, and just think of each part of your body as I speak of it:-

"Your feet are feeling tired and heavy and relaxed, tired and heavy and relaxed. Your feet are feeling tired and heavy and relaxed".

Each instruction is repeated three times as above in a quiet, rather monotonous voice.

"Your legs are feeling tired, heavy and relaxed.....

Your thighs are feeling tired, heavy and relaxed.....

Your stomach is feeling tired, heavy and relaxed.....

Your breathing is getting deeper and slower, deeper and slower" The voice keeping time with the respirations at first, and quickly the respirations keep time with the voice, so that the whole group is breathing deeply together.

Then "the eyes are feeling tired, heavy and relaxed" (repeated three times) and in most cases the eyes close in jerks, may open again once or twice, and then close as in normal sleep. If they fail to close I say "the eyelids feel so heavy they feel like lead, and the eyes want to close, just let them". The remaining patients then usually close their eyes. If not, the last suggestion is repeated until they do close. Then I continue, "The shoulders feel tired and heavy and relaxed, and the arms feel tired and heavy and relaxed. Now you are sleeping lightly, and your whole body is relaxed and comfortable. Now rest a minute".

Then to deepen the trance: "I want you to think of your left (or right) hand and arm only, and as you concentrate on it you will find it grows lighter and lighter, lighter and lighter, so light it rises up into the air like a balloon, up and up, (very good - if the patient is succeeding) up and up, until it just touches your face, when you will become more deeply asleep and more relaxed. Now the arm feels heavy again and relaxes at your side. Now stretch the right (or left) arm in front of you as far as it will go, and the muscles will beoome rigid and stiff like an iron bar, so rigid that you cannot bend your arm. Very good. Now the rest of your body is more relaxed and you are more deeply asleep. Now the right arm relaxes and returns to your side.

Now imagine yourself walking down a passage, and as you walk along you come to a table, and on the table is a basin of very hot water from which you can see the steam rising, so you know it is very

hot. Also there is a thick leather glove on the table. Now put your right hand into the hot water, and take it out again quickly and it feels hot and tingling and sore, and anything that touches your right hand will feel painful" (and I touch it with the blunt end of a pin, and the patient draws the hand away sharply).
"Now put the thick glove on the left hand, which is now protected and feels nothing, feels nothing, it is quite anaesthetic, numb and anaesthetic. This hand now becomes cold and anaesthetic" and is tested by putting a hypodermic needle through the skin. This is left in, and the patient told, "now your left hand will remain anaesthetic for two minutes after you waken up, and will then return to normal sensation". The right hand now returns to normal sensation.

The patient is now in as deep a trance as she can reach in this session, and the suggestions you want her to accept are now given, as follows:-

"You are now deeply asleep and completely relaxed. You have done very well, and will do better each time you come to relax here in the clinic, or in the labour ward. You will only be able to achieve this deep relaxation here in hospital for the purpose of having your baby, but at home when you are resting or wanting to go to sleep for the night, by relaxing each part of your body as you have been taught, you will go into a natural, normal sleep quickly and easily, but this deep relaxation is only necessary for having your baby, and you will only achieve it here in these classes or in the labour room". (This obviates the risk of a patient hypnotising herself in unsuitable surroundings when alone or when the children need her etc.).

"You have relaxed well, and will do so more easily and more deeply each time you come to this class. Now that you are learning to relax your body you should have an easier and more comfortable labour. Pain in a normal labour is mainly due to fear and tension and spasm of muscles. If you are relaxed in mind and body your womb or uterus should

empty itself without pain, just as the bowel or bladder empties itself without pain. You will feel contractions but they should not be painful, and the relaxed muscles will allow the baby to descend more easily. Therefore your labour will be shorter and easier than it would otherwise have been. You will sleep through your labour, but you will be able to hear and obey the instructions of the doctors and nurses, and you will feel contractions, but they will not be painful, and when the baby is ready to be born, by relaxing the muscles of the perineum or the part between the legs, and making the skin there anaesthetic, the baby will be born without pain, and with less chance of you needing stitches. If they are necessary they can be put in without you feeling them. You will awaken completely when the baby is born so that you can enjoy his safe arrival. You will feel refreshed, relaxed and supremely happy. You should make a good mother and should be able to breast feed your baby. Childbearing is a natural thing, not an illness. Your body was constructed for it, you need have no fear of it, and now that you have learnt to relax it will be easier and quicker, and you will think of it not as your labour, but as your baby's birthday, and therefore because you no longer fear it, you will enjoy your remaining weeks or months of pregnancy, looking forward with confidence and pleasure to your child being born, and therefore many symptoms of pregnancy that are often due to fear and tension will improve and disappear, such as heartburn, sickness and sleeplessness.

Now I am going to count five, and you will awaken, completely refreshed, with no headache or heaviness, and the next time you come to relax, you will do so more deeply and more easily than you have today.

One - coming lighter.

Two - lighter still.

Three- nearly awake.

Four - more awake.

Five - quite awake".

and the patient rubs her eyes and sits up.
"That was excellent, you did very well, how did you feel?", and if the patient has any questions these are then answered. The needle is still in her left hand, and she is told to lookmand see how well she can make a part of her body anaesthetic, and then she is told to take it out, and to prick both her hands and feel for herself the difference in sensation. This convinces the patient that it has not been a dream, and she will be able to make any part of her body anaesthetic or analgesic. The patients' charts are then marked with their ability in each category of relaxation as in the following figure:-

Mrs. X. E.D.D.

Date.	Lightening.	Catalepsy.	Anaes.	Remarks.
	+	++	++	Good medium trance subject. Complains of insomnia (for example).

The patient is given her next appointment. Usually three at weekly intervals, then the other three at about monthly intervals, the last one being just before her expected date of delivery.

At their third lesson they are taught self-hypnosis by giving the normal technique as above, but a post-hypnotic suggestion just before waking them as follows:-

"When I count five you will awaken completely, but afterwards you will find that you can put yourself off to sleep as deeply as you are now by counting seven to yourself, thinking of each part of your body relaxing as you do so, then you will be able to deepen your sleep by lightening your right arm, and stiffening your left without me saying anything, then make your right (or left) hand anaesthetic, and when you

have done so raise your thumb, so that I shall know, and I will test it, then I will talk to you, and you will waken yourselfes up to the count of five. This you will be able to do in future here at these classes, or in the labour room, but nowhere else, and you can do it whether I am there or not, because when you are in labour I may be away or operating, and I want you to be quite independent, and able to do this yourselves. Sister and the nurses and doctors will be near you and with you, and all will be well". Each patient then puts herself off to sleep and deepens her trance herself and wakens herself up, at this and every subsequent session, which then becomes much shorter.

The first 2-3 sessions take twenty minutes. The 4th - 6th take about ten minutes each.

Most of the patients on awakening say they feel wonderfully refreshed as if they had had two to three hours deep sleep. There is no doubt that they enjoy the rest of their pregnancy, and on many occasions husbands have telephoned to say "I don't quite know how you have done it, but my wife is a different woman, happy and now looking forward to her confinement, instead of being frightened and tearful, and often resentful".

If hypnosis did no more for the pregnant patient than to enable her to enjoy her nine months of pregnancy it would be worth while, but in fact it does also help her in her labour both subjectively and objectively as will be demonstrated.

A film in 16mm. Kodachrome of the technique of an ante-natal hypnosis lesson is appended.

After delivery, either before leaving hospital, or at the post natal visit the patient is again asked to "relax herself" by counting seven, and then is given a strong post-hypnotic suggestion as follows:-

"You have now had your baby, and you no longer require to be able to relax deeply in this way. Therefore you will find that in future

no one will be able to put you to sleep in this way, except a doctor for medical purposes. You will be able to relax your mind and body, and go more easily into a normal sleep, but you will no longer be able to relax yourself as deeply as this. Now count five and waken yourself up".

This protects her as a trained subject from unorthodox hypnotists, for some time. The longest time a post-hypnotic suggestion has been proved to be effective is 20 years (Estabrook).

Analysis of objective observations made in the labour ward.

The labours of seventy women taught auto-hypnosis are compared with the labours of seventy control patients, and with the labours of seventy patients trained by a midwife or a physiotherapist for childbirth, by Read's method of education, physiotherapy relaxation with controlled breathing, and suggestion; each group consisting of forty-five primigravid patients and twenty-five multigravid patients. The first seventy patients delivered vaginally in each group were assessed, so that no conscious selection of results occurred.

P R I M I G R A V I D A E.

Table 1. Auto-Hypnosis trained patients. Primigravidae.

No.	Name.	Age.	Parity.	No. of Ante Natal Hypnotic Sess.	Depth of Ante-Natal trance.
1.	Thompson. P*	31 p.p**	0	4	Medium.
2.	Dunne P	25 p.p.	0	5	Very deep.
3.	Bird P	45 p.p.	0	3	Deep.
4.	McCrone P	40 p.p.	0	8	Medium.
5.	Graham P	27	0 + 2 misc.	4	Medium.
6.	Studholme P	27	0	4	Deep.
7.	Fiddler P	19	0	4	Medium.
8.	Campbell	22	0	6	Deep.
9.	McMath	35	0	4	Light.
10.	Ferry P	29	0	4	Deep.
11.	McGrandlesP	39	0 + 1 misc.	3	Medium.
12.	Heslop P	27	0	7	Medium.
13.	Houston	27	0	5	Medium.
14.	Taylor	22	0	5	Medium.
15.	McLaughlin	22	0	2	Medium.
16.	Littleton P	38	0	6	Deep.
17.	Sloan P	29	0	6	Deep.
18.	Harrison	27	0	6	Light.
19.	Cameron	24	0	6	Deep.
20.	Barrow P	33 p.p.	0	6	Medium.
21.	Dodd	22	0	6	Deep.
22.	Taylor	20	0	5	Deep.
23.	Jackson P	22	0	7	Deep.
24.	Banks P	26	0	7	Medium.
25.	Hardie P	24	0	5	Medium.
26.	McClelland	30	0	6	Light.
27.	Bryson	28	0	7	Deep.
28.	Feddon	25	0	5	Deep.
29.	Proudlock	21	0	5	Deep.
30.	Heslop P	32	0	6	Medium.
31.	Coates	29	0	6	Medium.
32.	Clarke P	30 p.p.	0	5	Medium.
33.	McDermott	30	0 + 1 misc.	5	Medium.
34.	Robson	22	0	4	Deep.

No.	Name.	Age.	Parity.	No of Ante Natal Hypnotic Sess.	Depth of Ante Natal trance.
35.	Cummings P	32	0 + 2 misc.	7	Medium.
36.	Shield P	41 p.p.	0	3	Deep.
37.	Head	21	0	5	Light.
38.	Wilson	28	0	3	Medium.
39.	Harris	27	0	6	Light.
40.	Graham	25	0	5	Medium.
41.	Smailes P	26 p.p.	0	3	Medium.
42.	Sanderson	29	0	5	Medium.
43.	Smeeton P	29	0	5	Medium.
44.	Wilson,	32	0	4	Medium.
45.	McLaughlin	22	0	2	Medium.

Total: 1261 years.

Average: 28 years.

Average 5

5 Light.

24 Medium.

15 Deep.

1 Very deep.

For P* patients total: 671 years.

Average: 30 years 6 months.

Non P patients Total: 590 years.

Average: 25 years.

P* = Hypnotist present at the confinement.

pp** = Private patient.

No.	Length of labour in hours.							3rd stage blood loss in ozs.
	1st stage		2nd stage		3rd stage	Total		
	Hours.	Mins.	Hours.	Mins.	Mins.	Hours.	Mins.	
1.	8	0	1	30	10	9	40	4
2.	11	0	1	15	10	12	25	8
3.	5	0	1	0	10	6	10	18
4.	11	15	1	0	20	12	35	10
5.	3	0	0	30	15	3	45	2
6.	5	10	2	20	15	7	45	10
7.	2	0	0	30	15	2	45	6
8.	2	15	0	15	15	2	45	2
9.	3	0	2	0	20	5	20	8
10.	5	30	1	0	10	6	40	30
11.	11	45	0	30	5	12	20	10
12.	7	0	0	45	5	7	50	8
13.	4	45	0	55	5	5	45	8
14.	12	0	0	30	10	12	40	30
15.	6	0	0	40	5	6	45	½
16.	6	30	1	0	5	7	35	14
17.	7	45	2	30	20	10	35	6
18.	11	40	1	15	15	13	10	34
19.	11	30	0	35	5	12	10	5
20.	6	0	2	0	10	9	10	30
21.	4	40	2	20	10	7	10	16
22.	12	15	0	30	15	12	45	6
23.	5	15	1	35	20	7	10	10
24.	13	35	0	50	10	14	35	4
25.	5	30	0	20	35	6	25	5
26.	28	0	0	45	10	28	55	8
27.	24	0	2	20	15	26	35	6
28.	15	0	2	0	5	17	5	6
29.	6	0	0	25	15	6	40	6
30.	2	45	2	0	5	4	50	10
31.	9	0	2	0	5	11	5	7
32.	1	30	0	25	10	2	5	2
33.	4	30	1	35	10	6	15	6
34.	12	0	0	45	20	13	5	5

No.	Length of labour in hours.								3rd stage blood loss in ozs.
	1st stage		2nd stage		3rd stage	Total			
	Hours.	Mins.	Hours.	Mins.	Mins.	Hours.	Mins.		
35.	7	0	1	0	15	8	15		12
36.	2	0	0	5	5	2	10		4
37.	22	0	1	10	15	23	25		5
38.	4	30	0	35	10	5	15		1
39.	25	0	1	5	10	26	15		4
40.	9	30	0	25	5	10	0		2
41.	6	45	0	30	5	7	20		5
42.	11	0	0	20	5	11	25		10
43.	11	10	0	40	5	11	55		4
44.	6	30	1	0	30	8	0		5
45.	12	0	0	45	5	12	50		½
Total:	402 hrs.	30 mins.	47 hrs.	20 mins.		8 hrs.	40 mins.		393 ozs.
Average:	8 hrs.	56 mins.	1 hr.	3 mins.			12 mins.		9 ozs.

Total:

Total: 459 hours. 20 mins.
Average: 10 hours. 12 mins.

P patients* 1st stage.
Total: 145 hrs. 25 mins.
Average: 6 hrs. 36 mins.

Non P patients.
Total: 256 hrs. 5 mins.
Average: 11 hrs. 8 mins.

P patients* Total duration of labour.
Total: 174 hrs.
Average: 7 hrs. 54 mins.

Non P.patients.
Total: 285 hrs. 20 mins.
Average: 12 hrs. 24 mins.

*P patients = Hypnotist present at the confinement.

No.	Tear or Episiotomy.	Type of delivery.	Analgesics given before delivery.	Analgesics given for delivery or for perineal suture.
1.	Epis.	V. R.O.P. Low forceps for cord round neck.	50 mg.Pethidine	Local.
2.	Epis.	V. R.O.P. Low forceps for short cord.	Nil.	Local.
3.	Nil.	S.D.	Nil.	Nil.
4.	Nil.	S.D. V. R.O.P.	1/300 gr.Scopolomine.	Nil.
5.	Nil.	S.D.	Nil.	Nil.
6.	Nil.	S.D.	Nil.	Nil.
7.	Nil.	S.D.	Nil.	Nil.
8.	Nil.	S.D.	Nil.	Nil.
9.	Epis.	Mid cavity forceps.	Nil.	Pudendal block.
10.	Tear 1st degree	S.D.	Nil.	Nil.
11.	Nil.	S.D.	Nil.	Nil.
12.	Nil.	Forceps for foetal distress.	Nil.	Nil.
13.	Nil.	Forceps for foetal distress.	Nil.	Pudendal block.
14.	Tear 1st degree.	S.D.	100 mg.Pethidine.	Local.
15.	Nil.	S.D.	Nil.	Nil.
16.	Tear 1st degree.	S.D.	Nil.	Nil.
17.	Epis.	S.D.	Nil.	Nil.
18.	Epis.	S.D.	100 mg.Pethidine.	Local.
19.	Tear 1st degree.	S.D.	100 mg.Pethidine.	Nil.
20.	Epis.	S.D. V. R.O.P.	100 mg.Pethidine.	Local.
21.	Epis.	S.D. Face to pubes.	Nil.	Nil.
22.	Nil.	S.D.	Nil.	Nil.
23.	Epis.	S.D.	Nil.	Nil.
24.	Tear 1st degree.	S.D.	Nil.	Nil.
25.	Nil.	S.D.	Nil.	Nil.
26.	Epis.	Forceps for inertia & trans. arrest.	100 mg.Pethidine.	General anaes.
27.	Epis.	Forceps. Occ. post.	(200 mg.Pethidine. (Morphia, gr. 1/4.	Pudendal.
28.	Epis.	Forceps. Occ. post.	(Heroin, gr. 1/12. (Gas & air.	Pudendal.

No.	Tear or Episiotomy.	Type of delivery.	Analgesics given before delivery.	Analgesics given for delivery or fo perineal suture.
29.	Tear 2nd degree.	S.D.	100 mg.Pethidine.	Nil.
30.	Epis.	S.D.	Nil.	Local.
31.	Epis.	S.D.	Nil.	Local.
32.	Nil.	S.D.	Nil.	Nil.
33.	Tear 1st degree.	S.D.	100 mg.Pethidine	Nil.
34.	Nil.	S.D.	Nil.	Nil.
35.	Nil.	S.D.	Nil.	Nil.
36.	Nil.	S.D.	Nil.	Nil.
37.	Epis.	S.D.	100 mg.Pethidine Gas & air.	Local.
38.	Nil.	S.D.	100 mg.Pethidine	Nil.
39.	Tear 1st degree.	S.D.	Nil.	Nil.
40.	Nil.	S.D.	Nil.	Nil.
41.	Epis.	S.D.	Nil.	Nil.
42.	Tear.	S.D.	Nil.	Nil.
43.	Nil.	S.D.	Nil.	Nil.
44.	Tear 1st degree	S.D.	100 mg.Pethidine.	Nil.
45.	Nil.	S.D.	100 mg.Pethidine.	Nil.

24 Tear or Epis.

21 Nil.

No.	Baby's weight in lbs.	Breast fed at time of discharge.	Pregnancy Remarks and reason for using hypnosis.
1.	6 lbs. 10 ozs.	Yes.	Midwife. Anxious.
2.	8 lbs. 8 ozs.	Yes.	Very nervous. Afraid of needles.
3.	(4 lbs. 12 ozs. (4 lbs. 4 ozs.	Yes.	22 years sterility. Hypertension. Twins. Elderly prim.
4.	6 lbs. 14 ozs.	Yes.	15 years sterility. Very worried about breast feeding. Elderly prim.
5.	5 lbs.	Yes.	Very afraid of labour.
6.	8 lbs.	Yes.	Routine.
7.	7 lbs. 3 ozs.	Yes.	Routine.
8.	4 lbs.12 ozs.	Yes.	Anxious.
9.	7 lbs. 7 ozs.	Yes.	Anxious with fear of labour.
10.	7 lbs.12 ozs.	Yes.	Routine.
11.	7 lbs.14 ozs.	Yes.	Had a S.B.foetal abnormality at 6 months. Fear of a monster. Elderly prim.
12.	3 lbs.13 ozs.	N.D. Died 2nd day.	Sub-fertility. Five years married and anxious.
13.	6 lbs. 9 ozs.	Yes.	Routine.
14.	8 lbs.11 ozs.	Yes.	Anxious type.
15.	7 lbs.12 ozs.	Yes.	Routine.
16.	8 lbs. 3 ozs.	Yes.	Anxious elderly prim.
17.	6 lbs. 4 ozs.	Yes.	Routine.
18.	6 lbs.10 ozs.	Yes.	Anxious type.
19.	7 lbs. 6 ozs.	Yes.	Routine.
20.	7 lbs.13 ozs.	Yes.	5 years sterility. Anxious. Tense.
21.	7 lbs.12 ozs.	Yes.	Anxious.
22.	6 lbs.11 ozs.	Yes.	Routine.
23.	7 lbs. 8 ozs.	Yes.	Tense and worried.
24.	8 lbs. 9 ozs.	Yes.	Anxious type.
25.	6 lbs. 3 ozs.	Yes.	Anxious type.
26.	7 lbs.14 ozs.	No.	Anxious tense patient.
27.	8 lbs.	Yes.	Anxious. 4 years married.
28.	9 lbs. 3 ozs.	Yes.	Routine. Short woman, 4 ft. 11 ins.
29.	6 lbs.12 ozs.	Yes.	Routine.
30.	9 lbs. 1 oz.	No.	Anxious. Subfertility. 5 years married. Asthmatic.

No.	Baby's weight in lbs.	Breast fed at time of discharge.	Pregnancy Remarks and reason for using hypnosis.
1.	6 lbs. 10 ozs.	Yes.	Midwife. Anxious.
2.	8 lbs. 8 ozs.	Yes.	Very nervous. Afraid of needles.
3.	(4 lbs. 12 ozs. (4 lbs. 4 ozs.	Yes.	22 years sterility. Hypertension. Twins. Elderly prim.
4.	6 lbs. 14 ozs.	Yes.	15 years sterility. Very worried about breast feeding. Elderly prim.
5.	5 lbs.	Yes.	Very afraid of labour.
6.	8 lbs.	Yes.	Routine.
7.	7 lbs. 3 ozs.	Yes.	Routine.
8.	4 lbs.12 ozs.	Yes.	Anxious.
9.	7 lbs. 7 ozs.	Yes.	Anxious with fear of labour.
10.	7 lbs.12 ozs.	Yes.	Routine.
11.	7 lbs.14 ozs.	Yes.	Had a S.B.foetal abnormality at 6 months. Fear of a monster. Elderly prim.
12.	3 lbs.13 ozs.	N.D. Died 2nd day.	Sub-fertility. Five years married and anxious.
13.	6 lbs. 9 ozs.	Yes.	Routine.
14.	8 lbs.11 ozs.	Yes.	Anxious type.
15.	7 lbs.12 ozs.	Yes.	Routine.
16.	8 lbs. 3 ozs.	Yes.	Anxious elderly prim.
17.	6 lbs. 4 ozs.	Yes.	Routine.
18.	6 lbs.10 ozs.	Yes.	Anxious type.
19.	7 lbs. 6 ozs.	Yes.	Routine.
20.	7 lbs.13 ozs.	Yes.	5 years sterility. Anxious. Tense.
21.	7 lbs.12 ozs.	Yes.	Anxious.
22.	6 lbs.11 ozs.	Yes.	Routine.
23.	7 lbs. 8 ozs.	Yes.	Tense and worried.
24.	8 lbs. 9 ozs.	Yes.	Anxious type.
25.	6 lbs. 3 ozs.	Yes.	Anxious type.
26.	7 lbs.14 ozs.	No.	Anxious tense patient.
27.	8 lbs.	Yes.	Anxious. 4 years married.
28.	9 lbs. 3 ozs.	Yes.	Routine. Short woman, 4 ft. 11 ins.
29.	6 lbs.12 ozs.	Yes.	Routine.
30.	9 lbs. 1 oz.	No.	Anxious. Subfertility. 5 years married. Asthmatic.

No.	Baby's weight in lbs.	Breast fed at time of discharge.	Pregnancy Remarks and reason for using hypnosis.
31.	8 lbs. 1 oz.	No.	Nervous. Hyperemesis.
32.	2 lbs.12 ozs.	* I.U.D.	Anxious. Sub-fertility. 5 years married.
33.	7 lbs.12 ozs.	Yes.	Very anxious. 9 years married. Attended sterility clinic.
34.	7 lbs.12 ozs.	Yes.	Routine.
35.	8 lbs.10 ozs.	Yes.	Anxious. 11 years married. Sub-fertility.
36.	2 lbs. 4 ozs.	S.B. A.P.H.	Anxious 15 years married.
37.	7 lbs. 4 ozs.	Yes.	Routine.
38.	7 lbs. 3 ozs.	Yes.	8 years married. Anxious.
39.	5 lbs.13 ozs.	Yes.	3 years married. Nervous type.
40.	3 lbs.10 ozs.	* I.U.D. Cord round neck.	Routine.

* Intra-uterine death.

41.	8 lbs.	Yes.	Anxious. Requested hypnosis.
42.	7 lbs. 9 ozs.	Yes.	8 years married. Infertility patient. Anxious.
43.	8 lbs. 2 ozs.	Yes.	Anxious.
44.	8 lbs. 8 ozs.	Yes.	Requested hypnosis.
45.	7 lbs.12 ozs.	Yes.	Routine.

Total: 320 lbs. 10 ozs.

Average: 7 lbs. 2 ozs.

Table 2. Primigravid Controls.

No.	Name.	Age.	Parity.
1.	Nelson	23	0
2.	Brady	23	0
3.	Chamberlin	20	0
4.	Thompson	19	0
5.	Leighton	28	0
6.	Leslie	26	0
7.	Craig	32	0
8.	Brown	24	0
9.	Archibald	20	0
10.	Bell	26	0
11.	Bryce	18	0
12.	Bullen	28	0
13.	Calvert	32	0
14.	Carruthers	23	0
15.	Dodd	22	0
16.	Faulder	25	0
17.	Ferguson	21	0
18.	L'Engden	18	0
19.	Graham	24	0
20.	Graham	24	0
21.	Graham	20	0
22.	Harrison	19	0
23.	Hodgson	22	0
24.	Irwin	22	0
25.	Jeffrey	21	0
26.	Bell	22	0
27.	Dawson	22	0
28.	Richardson	22	0
29.	Stanwix	19	0
30.	Dowell	19	0
31.	Hill	19	0
32.	Peet	35	0
33.	Cartner	18	0
34.	Parente	21	0
35.	Edmondson	18	0

No.	Name.	Age.	Parity.
36.	Knox	19	0
37.	Little	19	0
38.	Milne	21	0
39.	Patterson	22	0
40.	Revell	21	0
41.	Poole	18	0
42.	Bonner	23	0
43.	Howe	21	0
44.	Read	25	0
45.	Walker	17	0

Total: 1011 years.

Average: 22 years 6 months.

No.	Length of labour in hours.							3rd stage blood loss in ozs.
	1st stage		2nd stage		3rd stage	Total		
	Hours.	Mins.	Hours.	Mins.	Mins.	Hours.	Mins.	
1.	8	0	1	30	15	9	45	20
2.	6	0	0	50	10	7	0	4
3.	5	15	0	20	25	6	0	12
4.	14	45	1	5	5	15	55	1
5.	15	10	1	0	15	16	25	3
6.	44	0	0	45	5	44	55	10
7.	3	45	0	25	10	4	20	25
8.	10	50	1	10	10	12	10	12
9.	6	0	1	30	10	7	40	18
10.	22	0	1	50	10	24	0	10
11.	12	0	1	5	5	13	10	10
12.	5	45	0	25	10	6	20	2
13.	15	0	0	25	5	15	30	5
14.	11	30	0	50	10	12	30	6
15.	4	40	2	20	10	7	10	16
16.	25	30	0	15	5	25	50	4
17.	21	30	0	30	15	22	15	8
18.	24	0	0	30	25	24	55	42
19.	7	30	1	5	25	9	0	20
20.	23	20	1	0	40	25	0	10
21.	27	0	0	15	5	27	20	2
22.	16	15	1	20	15	17	50	2
23.	42	0	0	50	10	43	0	27
24.	6	0	3	0	5	9	5	6
25.	7	15	1	15	25	8	50	8
26.	4	15	1	40	5	6	0	27
27.	25	15	0	40	10	26	5	5
28.	31	0	1	50	50	33	40	8
29.	44	0	1	15	40	45	55	15
30.	8	30	1	10	15	9	55	6
31.	9	40	0	20	15	10	15	20
32.	7	30	1	35	15	9	20	2
33.	11	0	1	45	15	13	0	8
34.	49	30	1	0	5	50	35	35
35.	23	45	0	30	10	24	25	5

No.	Length of labour in hours.							3rd stage blood loss in ozs.
	1st stage		2nd stage		3rd stage	Total		
	Hours.	Mins.	Hours.	Mins.	Mins.	Hours.	Mins.	
36.	11	15	0	30	10	11	55	5
37.	24	30	0	45	10	25	25	8
38.	10	30	2	0	15	12	45	20
39.	17	50	2	35	20	20	45	10
40.	17	15	1	0	20	18	35	3
41.	9	0	0	50	5	9	55	6
42.	21	15	0	40	5	22	0	2
43.	4	45	0	50	15	5	50	12
44.	8	50	0	30	10	9	30	2
45.	22	45	0	45	15	23	45	8
Total:	747 hrs. 20 mins.		47 hrs. 40 mins.		10 hrs. 5 mins.			490 ozs.
Average:	16 hrs. 36 mins.		1 hr. 3 mins.		13 mins.			11 ozs.

Total.

Total: 831 hrs. 30 mins.

Average: 18 hrs. 29 mins.

No.	Tear or Episiotomy.	Type of delivery.	Analgesics given before delivery.
1.	Tear 2nd degree.	S.D.	Gas & air.
2.	Nil.	S.D.	Pethidine, 100 mgm. Gas & air.
3.	Nil.	S.D.	Nil.
4.	Tear 1st degree.	S.D.	Pethidine, 100 mgm. Gas & air.
5.	Tear 2nd degree.	S.D.	Pethidine, 100 mgm. Gas & air.
6.	Tear 2nd degree.	S.D.	Pethidine, 200 mgm. Gas & air.
7.	Nil.	S.D.	Heroin gr. 1/12. Seconal, gr. 3. Gas & air.
8.	Tear 2nd degree.	S.D.	Welldorm. Gas & air.
9.	Tear 2nd degree.	S.D.	Gas & air.
10.	Epis.	Forceps.	Phenegan, 50 mgm. Seconal, 3 gr. Pethidine, 200 mgm. Trilene.
11.	Tear 2nd degree.	S.D.	Gas & air.
12.	Nil.	S.D.	Gas & air.
13.	Tear 1st degree.	S.D.	Welldorm. Pethidine, 100 mgm. Gas & air.
14.	Tear 1st degree.	S.D.	Gas & air.
15.	Epis.	S.D.	Welldorm. Gas & air.
16.	Nil.	S.D.	Pethidine, 100 mgm. Sod. Amytal. Gas & air.
17.	Tear 1st degree.	S.D.	Sod. Amytal. Gas & air.
18.	Tear 2nd degree.	S.D.	Gas & air.
19.	Tear 2nd degree.	S.D.	Nil.
20.	Tear 2nd degree.	S.D.	Sod. Amytal. Pethidine, 100 mgm. Gas & air.
21.	Nil.	S.D.	Chloral, 20 gr. Pethidine, 100 mgm. Gas & air.
22.	Epis.	S.D.	Chloral, 20 gr. Pethidine, 100 mgm. Gas & air.
23.	Tear 1st degree.	S.D.	Pethidine, 100 mgm. Trilene.

No.	Tear or Episiotomy.	Type of delivery.	Analgesics given before delivery.
24.	Tear 1st degree.	S.D.	Gas & air.
25.	Nil.	S.D.	Trilene.
26.	Epis.	S.D.	Welldorm. Trilene.
27.	Tear 2nd degree.	S.D.	100 mg.Pethidine.
28.	Epis.	Forceps: inertia	Welldorm 100 mg.Pethidine. Seconal, gr. 3.
29.	Tear 1st degree.	S.D.	200 mg.Pethidine. Morphia, gr. $\frac{1}{4}$. Gas & air.
30.	Tear 1st degree	S.D.	100 mg.Pethidine. Trilene.
31.	Nil.	S.D.	100 mg.Pethidine.
32.	Tear 3rd degree.	S.D.	100 mg.Pethidine. Gas & air.
33.	Epis.	S.D. Face to pubes.	Welldorm. 100 mg.Pethidine. Trilene.
34.	Nil.	S.D.	Sodium Amytal, gr.3. Omnopon, gr. $\frac{1}{3}$. Pethidine, 100 mg. Gas & air.
35.	Tear 2nd degree.	S.D.	Welldorm. 100 mg. Pethidine. Trilene.
36.	Tear 2nd degree.	S.D.	100 mg.Pethidine. Gas & air.
37.	Tear 1st degree.	S.D.	Welldorm. Trilene.
38.	Epis.	S.D.	Gas & air.
39.	Epis.	S.D.	Welldorm. Gas & air.
40.	Epis.	S.D.	Welldorm 100 mg.Pethidine. Trilene.
41.	Epis.	S.D.	Welldorm. 100 mg.Pethidine. Trilene.
42.	Nil.	S.D.	Welldorm. Pethidine. Gas & air.
43.	Nil.	S.D.	Welldorm. Trilene.

No.	Tear or Episiotomy.	Type of delivery.	Analgesics given before delivery.
44.	Tear 1st degree.	S.D.	100 mg.Pethidine. Trilene.
45.	Tear 1st degree.	S.D.	100 mg.Pethidine.

No.	Analgesics given for op. delivery or for perineal suture.	Baby's weight in lbs.	Breast fed at discharge.
1.	Morphia, gr. $\frac{1}{4}$. Local.	8 lbs. 9 ozs.	No.
2.	Nil.	6 lbs.13 ozs.	Yes.
3.	Nil.	6 lbs.10 ozs.	Yes.
4.	Local	7 lbs. 2 ozs.	No.
5.	Local. Omnopon, gr.$\frac{1}{3}$.	7 lbs. 2 ozs.	Yes.
6.	Local. Omnopon, gr.$\frac{1}{3}$.	9 lbs. 7 ozs.	Yes.
7.	Nil.	7 lbs.	Yes.
8.	Local. Omnopon, gr. $\frac{1}{3}$.	8 lbs. 3 ozs.	Yes.
9.	Local. Omnopon, gr. $\frac{1}{3}$.	6 lbs. 6 ozs.	Yes.
10.	Pudendal.	8 lbs.	No.
11.	Local. Omnopon, gr. $\frac{1}{3}$.	7 lbs. 8 ozs.	Yes.
12.	Nil.	5 lbs. 1 oz.	Yes.
13.	Local.	5 lbs.15 ozs.	Yes.
14.	Local.	7 lbs. 7 ozs.	Yes.
15.	Local. Omnopon, gr. $\frac{1}{3}$.	7 lbs. 12 ozs.	Yes.
16.	Nil,	7 lbs.11 ozs.	Yes.
17.	Local.	7 lbs. 7 ozs.	Yes.
18.	Local. Omnopon, gr.$\frac{1}{3}$.	9 lbs. 5 ozs.	Yes.
19.	Local. Omnopon, gr.$\frac{1}{3}$.	8 lbs. 8 ozs.	Yes.
20.	Omnopon, gr. $\frac{1}{3}$. Local.	6 lbs. 11 ozs.	Yes.
21.	Nil.	7 lbs. 8 ozs.	Yes.
22.	Omnopon, gr.$\frac{1}{3}$. Local.	8 lbs. 2 ozs.	Yes.
23.	Local.	8 lbs. 2 ozs.	Yes.
24.	Local.	7 lbs. 3 ozs.	Yes.
25.	Nil.	7 lbs.11 ozs.	Yes.
26.	Local.	9 lbs. 2 ozs.	Yes.
27.	Local.	6 lbs.12 ozs.	Yes.
28.	Pudendal.	5 lbs. 6 ozs.	Yes.
29.	Local.	8 lbs. 8 ozs.	Yes.

No.	Analgesics given for op. delivery or for perineal suture.	Baby's weight in lbs.	Breast fed at discharge.
30.	Local.	5 lbs. 9 ozs.	Yes.
31.	Nil.	9 lbs. 7 ozs.	Yes.
32.	(Local. (Gas & air.	7 lbs. 9 ozs.	Yes.
33.	Local.	5 lbs.10 ozs.	No.
34.	Nil.	7 lbs. 3 ozs.	Yes.
35.	Local.	7 lbs. 5 ozs.	Yes.
36.	(Local. (Omnopon, gr.$\frac{1}{3}$.	6 lbs.10 ozs.	Yes.
37.	Local.	4 lbs.13 ozs.	Yes.
38.	(Local. (Omnopon, gr.$\frac{1}{3}$.	6 lbs. 8 ozs.	Yes.
39.	Local.	6 lbs.11 ozs.	Yes.
40.	Local.	6 lbs. 7 ozs.	Yes.
41.	(Local. (Omnopon.	7 lbs.13 ozs.	Yes.
42.	Nil.	8 lbs. 6 ozs.	Yes.
43.	Nil.	8 lbs. 2 ozs.	No.
44.	(Local. (Omnopon.	5 lbs. 2 ozs.	Yes.
45.	(Local. (Omnopon.	4 lbs.	Yes.
	Total:	324 lbs. 2 ozs.	
	Average:	7 lbs. 3 ozs.	

Table 3.

Read's Physiotherapy relaxation trained Primigravidae.

No.	Name.	Age.	Parity.
1.	Burns	24	0
2.	Messenger	24	0
3.	Marrs	19	0
4.	Gardner	18	0
5.	Notman	22	0
6.	Edgar	30	0
7.	McNeil	26	0
8.	Wallis	26	0
9.	Scott	25	0
10.	Hetherington	23	0
11.	Balmer	19	0
12.	Hart	20	0
13.	Sibley	21	0
14.	Asti	27	0
15.	Irving	24	0
16.	Richardson	31	0
17.	Parkins	22	0
18.	Oliver	27	0
19.	Dargue	27	0
20.	Storey	20	0
21.	Teenan	25	0
22.	Hill	25	0
23.	Campbell	22	0
24.	Horne	27	0
25.	Waterworth	26	0
26.	James	27	0
27.	Dutton	30	0
28.	Cusimano	19	0
29.	Coulthard	24	0
30.	Charters	22	0
31.	Bradley	25	0
32.	Boyle	24	0
33.	Bannister	21	0
34.	Aylott	21	0

No.	Name.	Age.	Parity.
35.	Moffat	19	0
36.	Wardle	18	0
37.	Scott	24	0
38.	Dunbar	32	0
39.	Reed	25	0
40.	Taylor	28	0
41.	Harkins	20	0
42.	Bulman	16	0
43.	Hind	22	0
44.	Little	20	0
45.	Livingstone	20	0

Total: 1057 years.

Average: 23 years 6 months.

No.	Length of labour in hours.								3rd stage blood loss in ozs.
	1st stage		2nd stage		3rd stage		Total		
	Hours.	Mins.	Hours.	Mins.	Hours.	Mins.	Hours.	Mins.	
1.	31	45	2	15	0	10	35	15	23.
2.	37	0	1	35	0	15	38	15	15.
3.	18	30	0	30	0	10	19	10	5.
4.	11	10	1	0	0	10	12	20	7.
5.	13	35	0	45	0	45	15	25	20.
6.	16	5	1	5	0	5	17	15	12.
7.	8	30	0	25	0	10	9	5	14.
8.	19	40	0	40	0	10	20	40	4.
9.	9	50	0	30	0	15	10	35	8.
10.	10	30	1	20	0	30	12	20	34.
11.	47	0	0	45	0	10	48	0	19.
12.	21	40	0	40	0	10	22	30	4.
13.	7	45	1	0	1	15	10	0	30.
14.	22	0	2	15	0	5	24	20	3.
15.	18	0	0	40	0	10	19	0	7.
16.	11	0	1	50	0	5	12	55	10.
17.	13	0	0	40	0	10	13	50	2.
18.	21	15	1	50	0	5	23	10	8.
19.	26	15	0	15	0	10	26	40	1.
20.	10	0	1	0	0	25	11	25	4.
21.	18	0	1	30	0	15	19	45	3.
22.	41	0	0	35	0	10	41	45	2.
23.	7	0	2	10	0	5	9	15	20.
24.	18	0	0	45	0	15	19	0	8.
25.	3	0	1	0	0	15	4	15	5.
26.	16	35	1	30	0	10	18	15	10.
27.	14	0	0	35	0	5	14	40	8.
28.	3	30	1	15	0	15	5	0	20.
29.	11	0	0	25	0	10	11	35	4.
30.	11	45	1	0	0	5	12	50	5.
31.	7	0	1	55	0	10	9	5	8.
32.	19	45	1	35	0	15	21	30	10.
33.	25	30	2	0	0	10	27	40	5.
34.	30	0	1	0	0	15	31	15	8.

No.	Length of labour in hours.								3rd stage blood loss in ozs.
	1st stage		2nd stage		3rd stage		Total		
	Hours.	Mins.	Hours.	Mins.	Hours.	Mins.	Hours.	Mins.	
35.	18	30	2	35	0	5	31	10	2
36.	2	50	0	50	0	5	3	45	4
37.	4	10	0	15	0	10	4	35	5
38.	8	30	1	10	0	10	9	50	24.
39.	12	40	1	5	0	5	13	50	10
40	7	0	1	0	0	15	8	15	2
41.	2	25	0	30	0	20	3	15	5
42.	3	0	0	40	0	5	3	45	8
43.	5	45	0	45	0	10	6	30	6
44.	6	30	2	0	0	5	8	35	3
45.	10	55	0	35	0	10	11	40	2
Total:	682 hrs.	50 mins.	49 hrs.	40 mins.	9 hrs.	40 mins.			408 ozs.
Average:	15 hrs.	10 mins.	1 hr.	10 mins.			13 mins.		8.8 ozs.

Total

Total: 753 hrs. 20 mins.

Average: 16 hrs. 44 mins.

No.	Tear or Episiotomy.	Type of delivery.	Analgesics given before delivery.
1.	Epis.	S.D.	Welldorm. Pethidine, 250 mgm. Gas & air.
2.	Tear 1st degree.	S.D.	Welldorm. Pethidine, 100 mgm. Gas & air.
3.	Tear 1st degree.	S.D.	Welldorm. Seconal, 3 gr. Trilene.
4.	Tear 2nd degree.	S.D.	Seconal, 3 gr. Pethidine, 200 mgm. Gas & air.
5.	Nil.	S.D.	Welldorm. Sod. Amytal, gr. 3. Pethidine, 200 mgm. Trilene.
6.	Tear 2nd degree.	Forceps.	Pethidine, 100 mgm. Gas & air.
7.	Tear 1st degree.	S.D.	Pethidine, 100 mgm. Gas & air.
8.	Nil.	S.D.	Welldorm. Pethidine, 100 mgm. Gas & air.
9.	Tear 2nd degree.	S.D.	Welldorm. Gas & air.
10.	Tear 2nd degree.	S.D.	Gas & air.
11.	Epis.	S.D.	Morphia, gr. $\frac{1}{4}$ Seconal, gr. 3. Pethidine, 100 mgm. Trilene.
12.	Nil.	S.D.	Welldorm. Pethidine, 100 mgm. Trilene.
13.	Epis.	S.D.	Welldorm. Pethidine, 100 mgm. Trilene.
14.	Epis.	S.D.	Welldorm. Pethidine, 100 mgm. Trilene.
15.	Nil.	S.D.	Gas & air.
16.	Epis.	Forceps.	Seconal, gr. 3. Pethidine, 100 mgm. Gas & air.
17.	Tear 2nd degree.	S.D.	Welldorm. Pethidine, 100 mgm. Trilene.
18.	Epis.	Forceps.	Welldorm. Pethidine, 100 mgm.

No.	Tear or Episiotomy.	Type of delivery.	Analgesics given before delivery.
19.	Nil.	S.D.	Welldorm. Pethidine, 100 mgm. Gas & air.
20.	Nil.	S.D.	Gas & air.
21.	Tear 1st degree.	S.D.	Seconal, gr. 3. Pethidine, 100 mgm. Gas & air.
22.	Nil.	S.D.	Welldorm. Pethidine, 200 mgm. Gas & air.
23.	Nil.	S.D.	Welldorm. Gas & air.
24.	Epis.	Forceps.	Welldorm. Pethidine, 100 mgm. Gas & air.
25.	Epis.	S.D.	Pethidine, 100 mgm. Trilene.
26.	Tear 1st degree.	S.D.	Welldorm. Trilene.
27.	Epis.	Forceps: foetal distress.	Trilene.
28.	Nil.	S.D.	Trilene.
29.	Nil.	S.D.	Gas & air.
30.	Tear 2nd degree.	S.D.	Pethidine, 100 mgm. Gas & air.
31.	Tear 2nd degree.	Forceps: face pres^{n}. foetal distress.	Pethidine, 100 mgm.
32.	Epis.	Forceps: foetal distress.	Gas & O_2.
33.	Epis.	S.D.	Sodium Amytal, gr.3. Pethidine, 100 mgm. Gas & air.
34.	Epis.	S.D.	Pethidine, 100 mgm. Gas & air.
35.	Epis.	S.D.	Pethidine, 100 mgm. Gas & air.
36.	Tear 2nd degree.	S.D.	Gas & air.
37.	Tear 1st degree.	S.D.	Pethidine, 100 mgm. Gas & air.
38.	Tear 1st degree.	S.D.	Seconal. Pethidine, 100 mgm. Gas & air.

No.	Tear or Episiotomy.	Type of delivery.	Analgesics given before delivery.
39.	Nil.	S.D.	Gas & air.
40.	Epis.	S.D.	(Pethidine, 100 mgm. (Gas & air.
41.	Epis.	S.D.	(Welldorm. (Trilene.
42.	Tear 1st degree.	S.D.	Gas & air.
43.	Nil.	S.D.	(Welldorm. (Trilene.
44.	Epis.	Forceps for foetal distress. long 2nd stage.	(Welldorm. (Gas & O_2
45.	Tear 2nd degree.	S.D.	(Welldorm. (Trilene.

No.	Analgesics given for op. delivery or for perineal suture.	Baby's weight in lbs.	Breast fed.
1.	Omnopon & local.	9 lbs. 9 ozs.	Yes.
2.	Omnopon & local.	6 lbs.12 ozs.	Yes.
3.	Omnopon & local.	6 lbs. 2 ozs.	Yes.
4.	Omnopon & local.	8 lbs.13 ozs.	Yes.
5.	Nil.	6 lbs.13 ozs.	Yes.
6.	Pudendal.	6 lbs. 7 ozs.	Yes.
7.	Omnopon & local.	7 lbs.12 ozs.	Yes.
8.	Nil.	7 lbs.13 ozs.	Yes.
9.	Omnopon & local	8 lbs.	Yes.
10.	Omnopon & local.	7 lbs. 15 ozs.	Yes.
11.	Omnopon & local.	6 lbs.13 ozs.	Yes.
12.	Nil.	7 lbs.11 ozs.	Yes.
13.	Omnopon & local.	7 lbs. 2 ozs.	Yes.
14.	Omnopon & local.	6 lbs. 4 ozs.	Yes.
15.	Nil.	7 lbs.12 ozs.	Yes.
16.	Omnopon & local	8 lbs. 2 ozs.	Yes.
17.	Omnopon & local.	8 lbs. 9 ozs.	Yes.
18.	Pudendal.	6 lbs.	Yes.
19.	Nil.	5 lbs. 4 ozs.	Yes.
20.	Nil.	7 lbs.15 ozs.	Yes.
21.	Local.	6 lbs.	Yes.
22.	Nil.	7 lbs. 3 ozs.	Yes.
23.	Nil.	7 lbs. 4 ozs.	Yes.
24.	Pudendal.	7 lbs. 9 ozs.	Yes.
25.	Omnopon & local.	7 lbs. 7 ozs.	Yes.
26.	Local.	7 lbs. 2 ozs.	Yes.
27.	Pudendal.	6 lbs. 5 ozs.	Yes.
28.	Nil.	9 lbs. 5 ozs.	Yes.
29.	Nil.	8 lbs.12 ozs.	No.
30.	Local.	7 lbs. 9 ozs.	Yes.
31.	Gas & O_2 & local.	7 lbs. 7 ozs.	Yes.
32.	Pudendal.	7 lbs. 8 ozs.	Yes.
33.	Local.	7 lbs. 4 ozs.	Yes.
34.	Local.	6 lbs.11 ozs.	No.

No.	Analgesics given for op. delivery or for perineal suture.	Baby's weight in lbs.	Breast fed.
35.	Local.	8 lbs. 10 ozs.	Yes.
36.	Local.	6 lbs. 12 ozs.	Yes.
37.	Local.	6 lbs. 8 ozs.	Yes.
38.	Local.	7 lbs. 6 ozs.	Yes.
39.	Nil.	6 lbs. 6 ozs.	Yes.
40.	Local.	6 lbs. 15 ozs.	Yes.
41.	Omnopon & local.	6 lbs. 15 ozs.	Yes.
42.	Local.	8 lbs. 5 ozs.	Yes.
43.	Nil.	7 lbs. 6 ozs.	Yes.
44.	Pudendal.	6 lbs. 6 ozs.	Yes.
45.	Local.	6 lbs. 5 ozs.	Yes.
	Total:	328 lbs. 12 ozs.	
	Average:	7 lbs. 5 ozs.	

From these tables the following comparisons can be made:-

Primigravidae.

	Average age.	Average Length of labour.	Average Blood loss.	Average Baby's weight.
Aute-hypnosis Group.	28 years.	10 hrs. 12 mins.	9 ozs.	7 lbs. 2 ozs.
Control Group.	22 yrs. 6 mths.	18 hrs. 29 mins.	11 ozs.	7 lbs. 3 ozs.
Group trained by Read's Method.	23 yrs. 6 mths.	16 hrs. 44 mins.	8.8 ozs.	7 lbs. 5 ozs.

Thus the hypnosis patients, although an older age group (by five years) had a labour of just over half the average length of the control group, and the group trained by Read's method, the average baby's weight being almost the same in each group. Although this is not a large group of patients, yet this is a significant reduction in the duration of labour. ($P < .005$) This reduction in the length of labour in patients trained by hypnosis for childbirth, and delivered either in the trance state or under post-hypnotic suggestion is confirmed by some authors, but not by others, for example Michael (10) in a small series found the average labour of six primigravid hypnosis trained patients to be 14 hours 22 minutes, compared with 19 hours 4 minutes in six matched controls. Abramson and Heron (7) comparing 100 cases delivered under hypnosis with 88 controls, found the first stage of labour to be reduced by an average of 3.23 hours in the primigravid hypnosis group. Fry (24) reports twelve primigravidae with an average length of labour of $7\frac{3}{4}$ hours. Winkelstein (17) and August (18) and Perchard found no significant shortening of the duration of labour. Winkelstein (19), taking the admission-delivery interval as being the length of labour, found the average length for 38 hypnosis trained primigravid patients to be 6.9 hours, compared with 80 controls of 7.48 hours. August's figures for 442 hypnosis patients were

for primigravidae 11.9 hours compared with 10.56 hours in the controls, but he does not give the average age.

Perchard quotes the results of 400 primigravidae prepared by midwives; he found no difference in the average duration of labour in the trained group as compared with the controls.

The good results in this experimental group of auto-hypnosis trained patients may in part be explained by the fact that the training and delivery were as far as possible supervised by the same person, myself, whereas in the large groups reported, the training and delivery were undertaken by a team of workers, where rapport is more difficult to obtain, and as will be shown, the results are best when the obstetrician-hypnotist is also present at the labour to re-inforce the trance.

When the total time of labour is broken down into the duration of the first stage, second stage and third stage, it is found that all the reduction of time in the hypnosis group is in the first stage, the second and third stage duration being almost identical in the three groups (See graph).

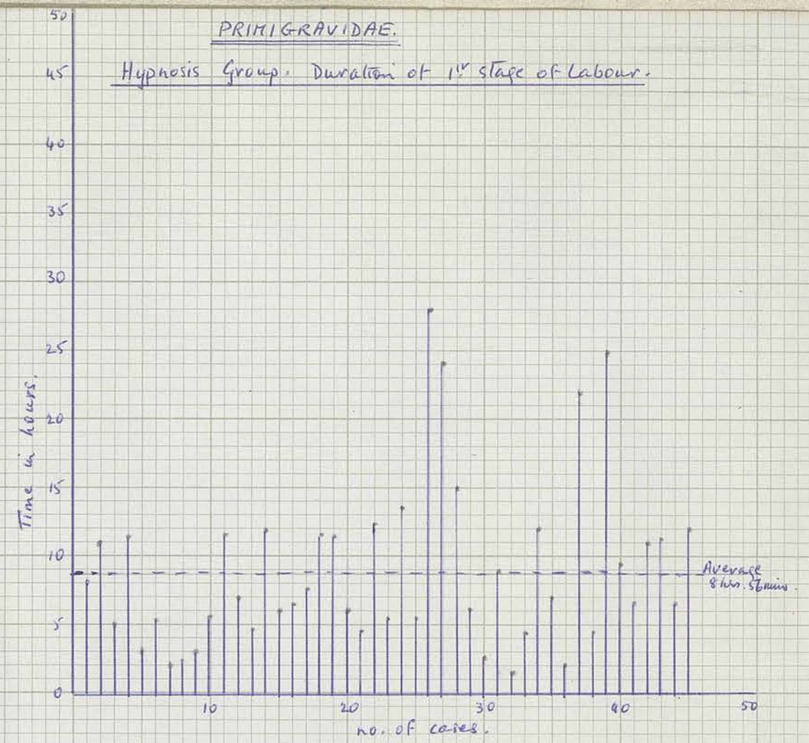
Average duration of the stages of labour in hours and minutes.

	1st stage	2nd stage	3rd stage	Total.
Auto-hypnosis Group.	8 hrs.56 mins.	1 hr. 3 mins.	12 mins.	10 hrs. 12 mins.
Control Group.	16 hrs.36 mins.	1 hr. 3 mins.	13 mins.	18 hrs. 29 mins.
Read Trained Group.	15 hrs.10 mins.	1 hr.10 mins.	13 mins.	16 hrs. 44 mins.

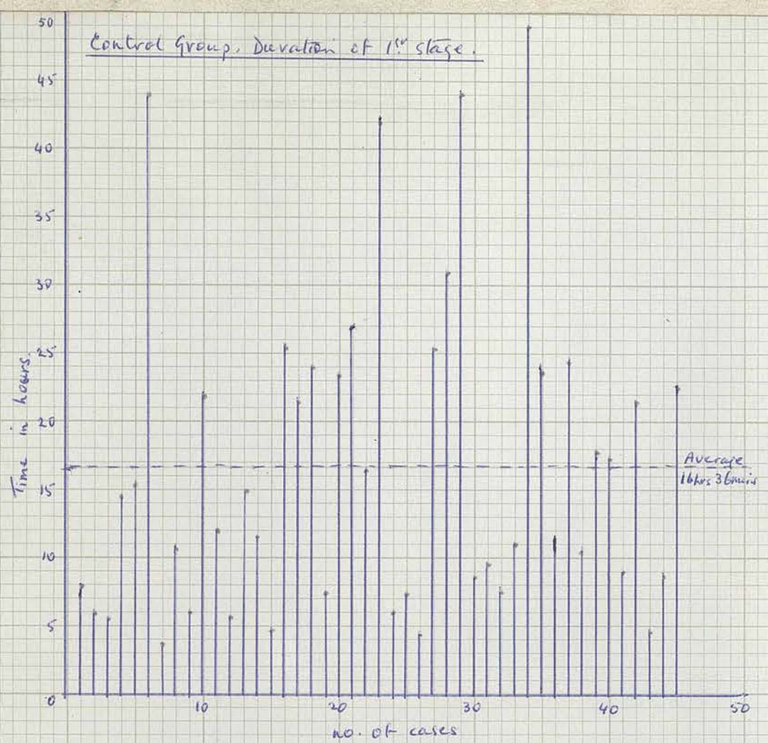
Thus in an older age group most of whom were selected for hypnosis because of fear or anxiety or because they were obstetrically

PRIMIGRAVIDAE.

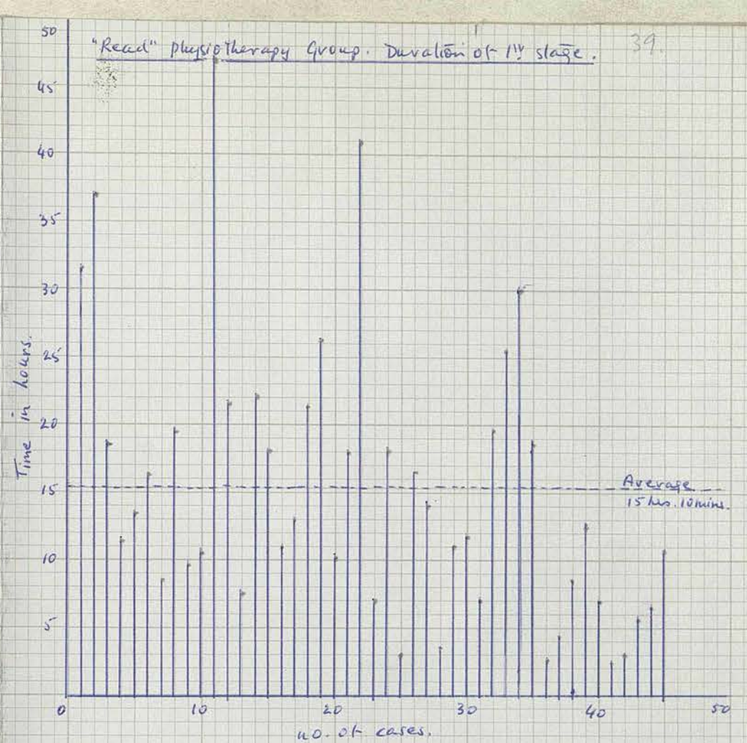
Hypnosis Group. Duration of 1st stage of Labour.



Control Group. Duration of 1st stage.

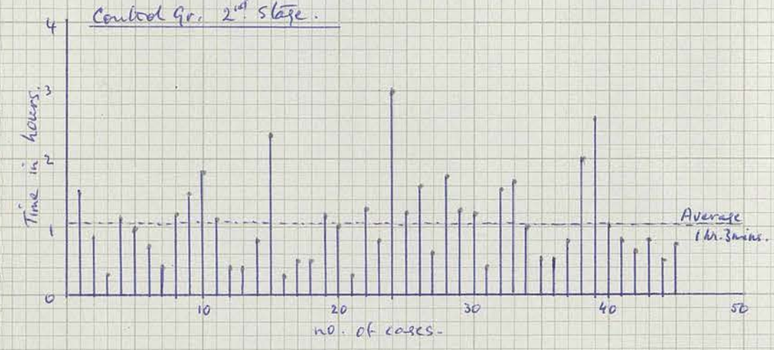


"Read" physiotherapy Group. Duration of 1st stage.

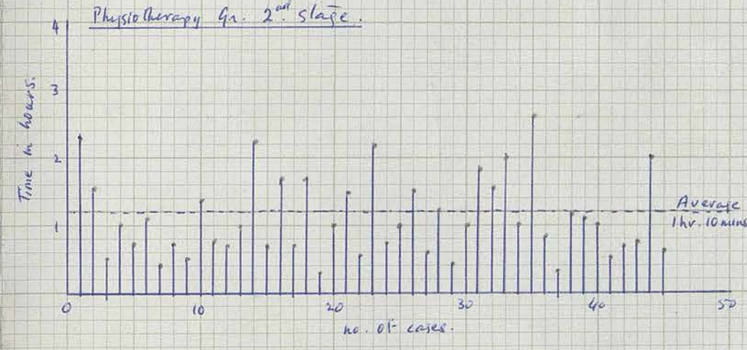


Hypnosis Group. 2nd stage

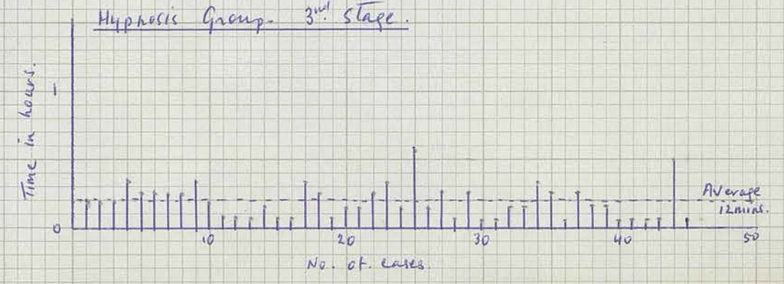
Control Gr. 2nd stage.



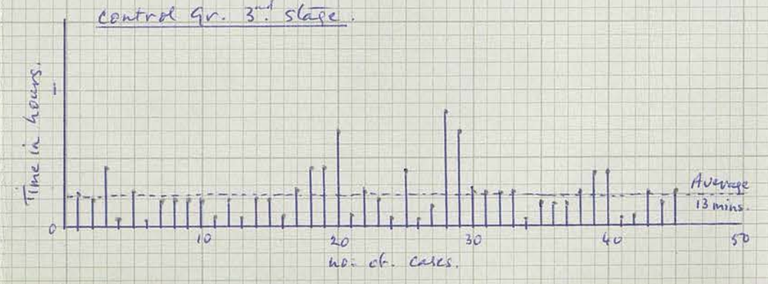
Physiotherapy Gr. 2nd stage.



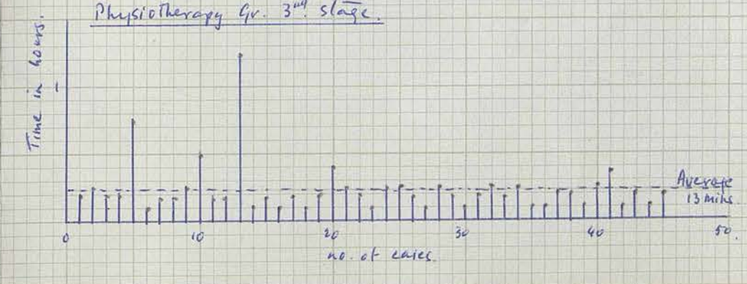
Hypnosis Group. 3rd stage.



Control Gr. 3rd stage.



Physiotherapy Gr. 3rd stage.



elderly, or had had long periods of infertility, in fact a group expected to have long and difficult labours, the average duration of the first stage of labour was just half that of the other two groups. If suggestion, relaxation, and the removal of fear can influence labour objectively at all, one would expect this influence to be manifest in the first stage where removal of the tension and fear causing sympathetic-parasympathetic disharmony would result in a quicker and less painful cervical dilation. This was clearly demonstrated in the 135 primigravid patients assessed, the hypnosis group having an average first stage of labour of 8 hours 56 mins., the controls having an average of 16 hours 36 mins., and the Read trained group an average of 15 hours 10 mins. A diminished need for analgesics in the first stage of labour in relaxed and confident patients would be expected, and this also is strikingly shown in the above series, the auto-hypnosis group requiring far less Pethidine than the two control groups. 13 of the 45 hypnosis patients or 29% required Pethidine in the first stage of labour, 26 of the 45 controls or 58% required it, and 27 of the 45 Read trained group or 60% required it. Thus assessing duration and analgesia, the group trained in auto-hypnosis took just half as long and required just half the analgesia in the first stage of labour as did the other two groups, and the hypnosis group were older and were selected for their fear and anxiety of childbirth.

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In the second stage the patient feels she can help the progress of labour by down-bearing, and she usually has a nurse with her, and her mental state is better as she feels the end of her labour is in sight. A certain time must be taken in the primigravida to allow the foetal head to mould through the pelvis, and the uterine contractions in this stage do this in spite of her mental state. In the above series of 135 patients the time is surprisingly constant, and the average of the three groups almost identical, 1 hour 3 mins in the hypnosis group

and the controls, and 1 hour 10 mins., in the Read trained group. The main difference one would expect in the second stage of labour, if a patient is relaxed and confident, rather than tense and frightened, is a lower tear or episiotomy rate and a diminished need for analgesics. Both these suppositions are confirmed by the clinical findings in the groups assessed. The episiotomy or tear rate in the hypnosis group being 56% and in the control group 76% and in the Read trained physiotherapy group 73%. These figures may be weighted against the hypnosis group as it contained six elderly primigravidae of 35 to 45 years, and the control group contained only one patient aged 35 years, and the Read group contained no patient of 35 years or over. In the second stage of labour the analgesic requirements were strikingly less in the hypnosis group as one would expect in the confident, relaxed, co-operative, happy patient. Only 2 or 5% required gas and air or trilene, whereas in the control group 39 of the 45 or 86% required inhalation analgesia, and in the Read trained group 43 or 96% required inhalation analgesia. In the third stage of labour again the duration is remarkably similar in the three groups, 12 mins., in the hypnosis group and 13 mins., in the other two groups. The mental state in the third stage in most patients is very good, the labour is almost over, the child is born, they have heard it cry, and they are full of joy and peace, whether they have had hypnosis training or not, or an easy labour or not, and providing the patient is fit and not anaemic and there has not been severe inertia that has persisted, the third stage, if properly conducted, should be short with no undue blood loss, and in the three groups the blood loss was comparable, 9 oz., 11 oz., and 8.8 oz., respectively.

It is therefore the first stage of labour that can be influenced by (a) suggestion to produce a satisfactory frame of mind and (b) ante-natal training to enable the patient to rest and relax, thus allowing

the natural musculo-nervous mechanism of labour to function most efficiently.

In assessing the significance of these findings many factors must be taken into consideration. The hypnosis group were selected mainly on a psychological basis, those showing undue apprehension being offered the training in auto-hypnosis. All except one, offered the training, accepted readily. The other two groups were offered physiotherapy relaxation classes, and the first 45 primigravidae who accepted and had a vaginal delivery were used for the Read group, and the first 45 primigravidae delivered vaginally that did not wish to attend physiotherapy classes were used as controls. The usual reason for rejecting the offer of physiotherapy relaxation classes was the distance the patient lived from the hospital, and as these physiotherapy classes were all given in the last six weeks of pregnancy, travelling long distances was a real problem, the area served by the City Maternity Hospital consisting of Carlisle City and a large rural area with a radius of fifty miles.

To make sure the three groups did not differ significantly in other factors that might influence the duration and pain of labour, the following criteria were assessed.

(1) Their social type as evidenced by:-their husband's occupation, the pre-marital conception rate, the time of their first booking at hospital, the number who were private patients and their religion.

(2) Their physical condition, by comparing the height of the blood pressure at their first visit, their haemoglobin level at their first visit and their height.

(3) Comparison of ante-natal complications necessitating admission to hospital before labour commenced.

Hypnosis Group. Primigravidae.

No.	Time of booking in mths.	Height in feet and ins.	B.P. (1st visit)	Husband's Occupation.	Hb. (1st visit)	Religion.	Pregnancy Complications
1.	1½	5' 4"	110/70	(Wife Nurse)Accountant.	85%	C.ofE.	Nil.
2.	2	5' 0"	120/80	Newspaper Photographer.	80%	C.of E.	Nil.
3.	4½	5' 7"	160/100	Innkeeper.	85%	C.of E.	Twins.P.E.T.
4.	2	5' 5"	115/80	Farmer. M*	82%	C.of E.	Nil.
5.	3	5' 3"	110/70	Painter (house) M	92%	C.of E.	Nil.
6.	2	5' 1"	128/80	Transport driver. M	95%	C.of E.	Nil.
7.	3½	5' 6"	126/80	Lab.Assistant.	82%	C.of E.	Nil.
8.	3	5' 3½"	140/70	Painter & Decorator. M	84%	R.C.	Anaemia.
9.	3	5' 5"	130/78	Boiler Maker. M	90%	R.C.	Nil.
10.	3	5' 7½"	130/70	Government Officer. M	94%	Methodist.	Hyperemesis.
11.	4½	4' 10½"	112/76	Electrician. M	80%	R.C.	Nil.
12.	3	5' 5"	120/80	Auctioneer.	98%	C.of E.	Nil.
13.	2½	4' 10½"	118/76	Miller. M	82%	C.of E.	P.E.T.
14.	3	5' 2"	140/80	Labourer M	88%	C.of E.	Nil.
15.	4	5' 4"	120/65	Labourer. M	88%	Methodist.	Nil.
16.	2½	5' 2"	130/80	Farmer. M	94%	C.of E.	Nil.
17.	3	5' 2"	120/80	Salesman(travelling).	94%	C.of E.	Nil.
18.	3	5' 5"	120/76	Electrician. M	82%	C.of E.	P.E.T.,A.R.M. F.T.
19.	2½	5' 3½"	102/60	Bank Manager.	86%	C.of E.	Nil.
20.	3	5' 5"	120/80	Teacher.	94%	C.of E.	Nil.
21.	3	5' 1¼"	114/66	Civil Servant.	98%	C.of E.	Nil.
22.	2	5' 2¼"	120/64	Nat.Service (Army) M	76%	C.of E.	Nil.
23.	2½	5' 5"	124/65	Motor Mechanic M	96%	C.of E.	Nil.
24.	2½	5' 4"	110/70	Clerk.	64%	Methodist.	Nil.
25.	3	5' 5"	120/70	Radio Technician. M	96%	C.of S.	Nil.
26.	3	5' 1½"	122/80	Railway Worker. M	98%	R.C.	Nil.
27.	3½	5' 2"	128/70	Tyre Fitter. M	94%	C.of E.	Post.Mat. O.B.E.
28.	3½	4' 11½"	104/64	Butcher. M	80%	C.of E.	P.E.T.,A.R.M. Term.
29.	2½	5' 2"	120/74	Joiner. M	98%	Methodist.	Nil.
30.	3	5' 4"	110/56	Mech.Plant Attendant.M	88%	C.of E.	Nil.
31.	2½	5' 2"	104/60	Local Government Off. M	80%	C.of E.	Nil.
32.	3	5' 2"	140/90	(Wife Radiographer) Chemist.	98%	C.of E.	Ess. hypertension.
33.	2½	5' 0½"	120/80	Glazier. M	98%	R.C.	Nil.

No.	Time of booking in mths	Height.	B.P. (1st visit)	Husband's Occupation.	Hb. (1st visit)	Religion.	Pregnancy Complics.
34.	3	5' 2"	124/78	Driver Salesman.	96%	Methodist.	Nil.
35.	1½	5' 8"	130/70	School Teacher.	82%	Methodist.	Nil.
36.	2½	5' 5"	150/95	Clerk.	94%	C. of S.	A.P.H.
37.	3	5' 5"	124/70	Engineer. M	80%	C. of E.	Nil.
38.	3½	5' 5"	134/76	Lorry Driver. M	90%	C. of E.	Nil.
39.	3	5' 4"	130/70	Seedsman. M	90%	C. of E.	P.E.T., A.R.M. at term.
40.	3	5' 4"	110/70	Farmer. M	80%	C. of E.	P.E.T., I.U.D.at 35 weeks.
41.	8 Moved to area	5' 4"	120/80	Engineer. M	86%	C. of E.	P.E.T.
42.	4	5' 5½"	120/80	Painter & Decorator. M	76%	C. of E.	Nil.
43.	2½	5' 6"	110/60	Engineer. M	72%	C. of E.	Nil.
44.	2½	5' 3"	110/70	Articled clerk.	80%	C. of E.	Nil.
45.	3	5' 2"	120/80	Labourer. M	78%	C. of E.	Nil.

Total:	235' 0½"	3 with hypertension.	Total:	3833	5 R.C's.
Average:	5' 2½"	(140/90 or over)	Average:	85%.	6 Meth.
			2 below	75%.	2 C.of S.
					32 C.of E.

5 booked on or after 4th month.

* Manual Worker: M 30
Non Manual Worker: 15

12 Ante Natal Complications.

Primigravid Controls.

No.	Time of booking in mths.	Height.	B.P. (1st visit)	Husband's Occupation.	Hb. (1st visit)	Religion.	Pregnancy Complics.
1.	2	5' 1½"	120/60	Upholsterer. M	98%	C.of E.	Nil.
2.	3½	4' 11"	110/70	Farm Labourer. M	88%	C.of S.	Nil.
3.	8.Came to Carlisle.	5' 3"	120/74	R.A.F. M	82%	C.of E.	Nil.
4.	8½. Unm.	5' 4"	120/76	Spinster.Egg Tester.	80%	C.of E.	Nil.
5.	3½	5' 4"	126/70	Caravan Salesman.M	72%	C.of E.	Nil.
6.	3	5' 1"	112/76	Salesman. M	85%	C.of E.	Nil.
7.	8½	5' 4"	140/100	Lab. Assistant.	74%	C.of E.	P.E.T.
8.	7.Came to Carlisle.	5' 6"	130/80	Navy. M	86%	C.of E.	Nil.
9.	3	5' 1"	130/70	Labourer. M	84%	R.C.	Nil.
10.	8	5' 1¼"	130/90	Contractor. M	80%	C.of E.	P.E.T.
11.	2	5' 5"	130/80	Costing Clerk.	80%	C.of E.	Nil.
12.	3½	5' 3"	130/82	Farm Labourer. M	74%	R.C.	Nil.
13.	2½	5' 0½"	120/70	Merchant Seaman. M	84%	C.of E.	Nil.
14.	2	5' 3½"	120/80	Instrument Maker.M	92%	C.of E.	Nil.
15.	2	5' 5½"	124/70	Electrical Engineer. M	88%	R.C.	Nil.
16.	2½	5' 7¾"	130/64	School Teacher.	96%	C.of E.	Nil.
17.	2	5' 0¾"	130/74	Soldier. M	82%	Methodist.	Nil.
18.	5. Pre-marital conc.	5' 7"	130/80	Baker. M	73%	C.of E.	Nil.
19.	2½	5' 2½"	120/78	Electrician. M	100%	C.of E.	Nil.
20.	3	5' 2¼"	134/82	Busdriver. M	84%	C.of E.	Nil.
21.	3½	4' 11½"	132/60	Railway Worker. M	88%	C.of E.	Nil.
22.	2½	5' 5"	128/64	Railway Fireman. M	70%	C.of E.	Nil.
23.	3½	5' 1"	108/60	Fitter. M	90%	C.of E.	Nil.
24.	3½	5' 3¼"	120/70	Soldier. M	92%	C.of E.	Nil.
25.	7½. Pre-marital conc.	5' 3"	120/68	Fitter in Eng.works. M	78%	C.of S.	Nil.
26.	3½	5' 3½"	124/70	Engineer. M	84%	R.C.	Nil.
27.	4	5' 5"	128/78	Plasterer. M	80%	C.of S.	Nil.
28.	2½	5' 2¾"	110/64	Storeman. M	78%	C.of E.	Nil.
29.	7½. Came to Carlisle.	5' 2½"	116/70	Farmer. M	60%	C.of E.	Anaemia.
30.	3½	5' 0½"	128/86	Painter (decorator) M	90%	C.of S.	Nil.
31.	6½	5' 6½"	110/70	Builder. M	76%	C.of E.	Nil.
32.	3	5' 5"	120/78	Farm Labourer. M	80%	C.of E.	Nil.

No.	Time of booking in mths	Height.	B.P. (1st visit)	Husband's Occupation.		Hb. (1st visit)	Religion.	Pregnancy Complications.
33.	5	5' 3½"	112/70	Peat Moss Worker.	M	70%	C.ofE.	Nil.
34.	3	5' 0½"	120/76	Forestry Worker.	M	90%	R.C.	Nil.
35.	4	5' 3½"	112/64	Farm Labourer.	M	92%	C.of E.	Nil.
36.	3½	4' 11½"	120/65	Army Corporal.	M	82%	C.of E.	Nil.
37.	3	5' 10¼"	118/80	Army Private.	M	70%	R.C.	Nil.
38.	3	5' 1"	130/80	Labourer.	M	86%	C.of E.	Nil.
39.	3	5' 7"	110/60	Miner.	M	74%	C.of E.	Cardiac I.
40.	3½	5' 3"	130/76	Farmer	M	88%	C.of E.	Nil.
41.	6	5' 2"	120/70	Unmarried. Works on farm.	M	76%	C.of E.	Mild P.E.T. at term.A.R.M.
42.	6. Pre-marital conc.	5' 6"	130/80	Mechanic	M	80%	C.of E.	Nil.
43.	6	5' 1½"	130/64	Farm Worker.	M	78%	C.of E.	Mild P.E.T.at term. A.R.M.
44.	4	5' 4"	105/65	Lithographer. (Wife Nurse)		88%	Meth.	Nil.
45.	4½	5' 4½"	130/68	Labourer.	M	70%	C.of E.	Nil.

Total: 237' 1¼".
Average: 5' 3"

1 with hypertension.

Total: 3692
Average: 82%
10 below 75%

6 R.C.
2 Meth.
4 C.of S.
33 C.of E.

17 booked on or after 4th month. (4 pre-marital conceptions).

Manual Worker: M 40
Non Manual Worker: 5

6 Ante natal complications.

Read Trained Group. Primigravidae.

No.	Time of booking in mths.	Height.	B.P. (1st visit)	Husband's Occupation.	Hb. (1st visit)	Religion.	Pregnancy Complications.
1.	2½	5' 4"	130/80	Shop Manager.	80%	R.C.	Nil.
2.	3	5' 5"	110/70	Radio Technician. M*	84%	C.of E.	Nil.
3.	3½	5' 2"	110/58	Horticultural Eng.	82%	C.of E.	Nil.
4.	3	5' 3¼"	128/74	Labourer. M	90%	R.C.	Nil.
5.	3½	5' 4"	130/80	Draughtsman.	92%	C.of E.	Nil.
6.	3½	5' 4"	130/80	Joiner. M	76%	C.of E.	Nil.
7.	4	5' 7"	100/60	Electrician. M	86%	R.C.	Nil.
8.	7½. Came to Carlisle	5' 3"	110/60	Analytical Chemist. (Wife Nurse)	80%	C.of E.	Nil.
9.	2½	5' 8"	116/66	Leather Worker. M	88%	C.of E.	Nil.
10.	3	5' 3½"	115/75	Fitter. M	86%	Meth.	S.I. Post-Maturity.
11.	4½	5' 4"	150/70	Clerk.	74%	R.C.	Mild P.E.T.
12.	4	5' 4½"	120/70	Army. Soldier. M	82%	C.of E.	Nil.
13.	4	5' 4"	100/60	Joiner. M	70%	C.of E.	Nil.
14.	4	5' 2"	110/70	School Teacher.	90%	R.C.	Nil.
15.	2½	5' 5"	120/70	Engineer. M	76%	C.of E.	Nil.
16.	2	5' 5"	120/68	Insurance Clerk.	90%	C.of S.	Nil.
17.	3	5' 7"	128/70	Blacksmith. M	86%	Meth.	Nil.
18.	3	5' 2½"	120/70	Timber Representative M	88%	C.of E.	Nil.
19.	5½	5' 5½"	110/60	Cinema Projectionist	84%	C.of E.	Nil.
20.	3½	4' 11"	110/70	Bricklayer. M	80%	R.C.	Nil.
21.	3½	5' 3"	120/80	House Painter. M	90%	C.of E.	Nil.
22.	3½	5' 2½"	124/84	Regular Army.	80%	Meth.	Nil.
23.	4	5' 0"	100/62	Articled Clerk.	86%	Meth.	Nil.
24.	4	5' 5"	110/70	Labourer. M	82%	C.of E.	Nil.
25.	4½	5' 3½"	130/85	Vet. Surgeon.	76%	C.of E.	Nil.
26.	2	5' 8"	138/60	Teacher (Wife Radiographer).	88%	C.of E.	Nil.
27.	3	5' 4"	138/78.	School Teacher.	90%	C.of E.	Post.Mat. A.R.M.
28.	4½	5' 8"	130/76	Tailor. M	70%	C.of E.	Nil.
29.	7	5' 4½"	124/68	Farmer (Wife dietician). M	74%	C.of E.	Nil.
30.	2½	5' 6"	130/80	Insurance Agent.	92%	C.of E.	Nil.
31.	2½	5' 4½"	110/70	Salesman. M	86%	C.of E.	Nil.
32.	4½	5' 3½"	120/60	Painter & Decorator.	54%	C.of E.	Anaemia.

No.	Time of booking in mths.	Height.	B.P. (1st visit)	Husband's Occupation.	Hb. (1st visit)	Religion.	Pregnancy Complics.
33.	$2\frac{1}{2}$	5' 2"	110/70	Railway Worker. M	94%	C.of E.	Nil.
34.	$2\frac{1}{2}$	5' 6"	120/70	Reg. Army(Captain)	98%	C.of E.	Nil.
35.	2	5' 2"	118/58	Slater & Tiler. M	64%	C.of E.	Nil.
36.	$2\frac{1}{2}$	5' 4"	122/70	Farmer. M	80%	Meth.	Nil.
37.	2	5' $1\frac{1}{2}$"	118/60	Dispatch Clerk. M	88%	C.of E.	Nil.
38.	$2\frac{1}{2}$	5' 0"	135/70	Joiner. M	86%	C.of E.	Nil.
39.	3	5' 6"	120/80	Bank Clerk.	78%	C.of E.	Mild P.E.T.
40.	3	5' $2\frac{1}{2}$"	114/70	"Self employed".	92%	C.of S.	Nil.
41.	7. Pre-marital conc.	5' $0\frac{1}{2}$"	124/66	R.A.F. M	76%	C.of E.	Nil.
42.	$5\frac{1}{2}$. Pre-marital conc.	5' 7"	112/66	Painter & Decorator. M	80%	C.of E.	Nil.
43.	2	5' 5"	128/80	Labourer. M	78%	C.of E.	Nil.
44.	3	5' 3"	126/72	Railway Worker. M	80%	C.of E.	Nil.
45.	2	5' $4\frac{1}{2}$"	140/60	Sales Representative.	70%	C.of E.	Nil.

Total: 239' $9\frac{3}{4}$"
Average: 5' 4"

No hypertensives.

Total: 3696
Average: 82%
7 below 75%

6 R.C.
5 Meth.
2 C. of S.
32 C. of E.

15 booked on or after 4th month. (2 pre-marital conceptions).

*Manual Worker:M = 26
Non Manual Worker: 19

5 Ante natal complications.

Comparison of groups socially, medically and obstetrically.

Social background.

	Husband's Occupation.		Pre-marital conception.	Booked on or after 4th mth.	Private pats.	Religion.			
	Manual.	Non Manual.				R.C.	Meth.	C. of S.	C. of E
Hypnosis Group.	30	15	0	5	5	5	6	2	32
Controls.	40	5	4	17	0	6	2	4	33
Read trained Physio. Group.	26	19	2	15	0	6	5	2	32

Medical and Obstetric background.

	Hypertension (140/90 at 1st visit or over)	Average Hb. at 1st visit	No. with Hb. bel. 75%	No. of Ante Natal Complics.	Height Av.	No. shorter than 5'	No. of babies wt. less than 6 lbs.
Hypnosis Group.	3	85%	2	12	5'2½"	3	8
Controls.	1	82%	10	6	5'3"	3	8
Read trained Physio. Group.	0	82%	7	5	5'4"	1	1

The social background, as assessed by the husband's occupation (manual or non-manual) shows the hypnosis group and Read trained groups to be comparable, but in the control group a much higher proportion were manual workers.

There were very few pre-marital conceptions in any group. The hypnosis group booked for hospital confinement earlier in labour, as would be expected in a group containing a greater number of elderly and anxious patients. The religious groups were very similar.

The physical assessment showed the blood pressure and average haemoglobin to be very similar in all three groups, though the hypnosis group had the smallest number of patients commencing pregnancy with a haemoglobin less than 75%. The average height of the three groups was almost identical, and the hypnosis and control groups had the same number of very short patients, i.e. under 5 ft. tall; they also had the same number of small babies, i.e. under 6 lbs. in weight.

Comparing the ante-natal complications that necessitated pre-delivery inpatient treatment, the hypnosis group had twice as many as the other two groups, mostly pre-eclamptic toxaemia, as might be expected in an older age group.

The possibility that the auto-hypnosis patients were less aware of their early contractions, than the controls, must also be considered when assessing the differences in duration of labour.

The group trained by Read's method of physiotherapy showed no significant shortening of the duration of labour in any stage when compared with the Control group. 1st stage 15 hours 10 mins., (control group 16 hours 36 mins.) 2nd stage 1 hour 10 mins. (control group 1 hour 3 mins.) 3rd stage 13 mins. for each group. Total 16 hours 44 mins. (controls 18 hours 29 mins.). The average baby's weight was comparable 7 lbs. 3 oz (controls 7 lbs. 2 oz.) and the Mother's height 5 ft. 4 inches (controls 5 ft. 3 inches) was similar.

This finding of no significant shortening of labour by patients trained by Read's physiotherapy relaxation is confirmed by Burnett (20) in 221 primigravidae trained by Read's method in the West Middlesex hospital, their average duration of labour 18 hours 38 mins., compared with 17 hours 38 mins., in the controls. In Rodway's series of (21) 875 primigravidae the "Read trained" primigravidae had a duration of labour of 18 hours 5 minutes, compared with the controls who had an average duration of 18 hours 58 minutes labour. Van Eps in (22) Amsterdam also found no difference in the duration of labour in 64 primigravidae trained by Read's method compared with the same number of controls.

Read himself claimed there was a shortening of labour, and (5) Heardman in 500 primigravid patients trained by the Read method (23) found a slight reduction in the length of labour, 17 hours 10 minutes as compared with the control group of 500 patients with an average labour of 20 hours 42 minutes.

In large groups of patients then, simple physical training does not appear to shorten the duration of labour appreciably.

Hypnosis does, however, appear to shorten labour and in this series shortened it appreciably.

The need for chemical analgesia or anaesthesia was significantly reduced in the auto-hypnosis trained group, as can be seen from the

following tables, and this in spite of the fact that 30 of the 45 primigravid patients were selected because of over-anxiety and fear of labour, yet by the time they had had reassurance and strong positive suggestions that labour would be quicker and easier than it would have been without auto-hypnosis training, and that they would feel little if any pain if really relaxed, this group required very little chemical analgesia, as compared with the control group of normal young primigravidae, or with the unselected group trained by Read's physiotherapy method.

Primigravidae. Before delivery

	Required no analgesia.	Required Gas and air + Welldorm.	Required Pethidine only.	Required Pethidine & Gas & air.	Required Scop. only.	Required Pethidine + a barbit. or opiate & Gas & air.
Auto-hypnosis Group.	30	-	11	1	1	2
Control Group	2	15	3	17	-	8
Group trained by Read's method.	0	17	2	18	-	8

At delivery.

Hypnosis Group.
- 37 Spontaneous delivery - No analgesia required.
- 8 Forceps delivery - 3 required no analgesia.
  4 pudendal block.
  1 general anaesthetic.

Control Group.
- 43 Spontaneous delivery - 5 required no analgesia.
  38 required Gas & air or Trilene.
- 2 Forceps delivery - both required pudendal block.

Group trained by Read's method.
- 37 Spontaneous delivery - All required Gas & air or Trilene.
- 8 Forceps delivery - 1 required no analgesia.
  6 required pudendal block.
  1 required Gas & oxygen and local.

For Perineal Repair.

Hypnosis Group. 25 or 56% required sutures. 13 or 52% of these required local or pudendal anaesthesia.

Control Group. 34 or 76% required sutures, and all required local anaesthesia + Omnopon.

Group trained by Read's method. 33 or 73% required sutures, and all required local anaesthesia + Omnopon.

For Spontaneous Delivery.

	No.	No analgesia required.	Gas & air or trilene required.	Number requiring suture.	Number requiring local anaesthesia.
Auto-hypnosis Group.	37	37	0	19 (50%)	6
Control Group	43	5	38	33 (77%)	33
Group trained by Read's method	37	0	37	25 (67%)	25

In the hypnosis group 25 of the 45 patients or 55% required no analgesia or anaesthesia throughout labour other than their own hypnotically induced insensitivity to pain. In the control group only 1 or 2.2% had no need of chemical analgesia throughout the whole labour. All other authors find the same marked diminution in the need for analgesia in labour in hypnotically trained patients, in fact this is one of the main indications for the method, giving greater safety to mother and child, as anoxia is eliminated.

August (18) in a 351 mixed primigravidae and multigravidae found 93.5% required no other analgesic agent.

Michael (10) in a series of 30 mixed primigravidae and multigravidae trained by hypnosis obtained 73% painless labours with no chemical analgesia. He himself attended the patients at the beginning of labour, and stayed with them throughout the second stage.

In Winkelstein (17) series of 200 primigravidae and multigravidae 22.5% of the hypnosis patients required no other analgesia, and if one includes those requiring gas and air at the delivery of the head only, the figure of 46.5% is obtained.

In Perchard's (19) group of 400 primigravidae 30% required no other sedation (controls 15%).

In the 30 patients taught auto-hypnosis by Kline (13) 57% required no drugs during delivery, and all except one of those requiring drugs required less than the average amount required by non-trained patients. In this series an average of 9.5 training sessions were given to each patient.

Fry (24) in a series of 20 mixed primigravidae and multigravidae had 19 requiring no chemical analgesia. 1 required trilene for a forceps delivery.

Werner (25) reported, 60% of his 100 primigravidae and multigravidae delivered under hypnosis required no additional analgesia in the first or second stage of labour, and Tom (28) found 40% of 73 trained patients required no analgesia.

In a good subject analgesia can be so complete as to allow a caesarean hysterectomy with no other chemical analgesic agent used as reported by Kroger and DeLee.(12) Winkelstein performed eight of fourteen caesarean sections under hypnosis alone.(17)

All writers are unanimous in their findings that hypnosis trained patients require significantly less chemical analgesia in childbirth than the controls.

In this series the group trained by Read's method did less well than the control group, all requiring some analgesia during labour. This may be due to the fact that these were the first patients trained by the midwife and physiotherapist. In the first stage 27 or 60% of the Read Group required Pethidine, and 26 or 58% of the controls required it. In the second stage of the 37 delivered spontaneously by Read's method, all or 100% required inhalation analgesia, whereas 38 or 89% of the 43 controls delivered spontaneously required gas & air or trilene. Other authors vary in their findings of the need for analgesics in patients trained by Read's method, for example, Read found 49% required no drugs in labour, and if sedatives were excluded 64% required no analgesic drugs.(5) Heardman in 500 primigravidae found 43% required no analgesia. (2.6% controls required none).(23) Thoms in 292 primigravidae found 19.9% required no analgesia.(26) Rodway, however, in 992 primigravidae trained by Read's method found 27% required no analgesia in the first stage and 27% of controls required none.(21) In the second stage 27.2% of trained and 28.6% of controls required no analgesia. He therefore found no reduction in the need for analgesic drugs in the "Read trained" patients.

Perineal tear or episiotomy rate in primigravidae.

This in my series seemed high in all groups, 56% in the hypnosis group, 76% in the controls and 73% in the Read-trained physiotherapy group. This may be due in part to the fact that most of the deliveries were conducted by midwives in training. The hypnosis group, did however, show fewer tears or episiotomies.

In August's (18) series the hypnosis group had 66.4% tears or episiotomies, and the control group 58.8%.

In the physiotherapy or Read-trained group in my series 73% required sutures (76% in the controls). Other authors vary in their findings:-

Read's own series of primigravidae showed 48.8% required sutures.

In Heardman's series 47.5% required sutures (63.3% of controls).

In Burnett's (23) series 67.9% required sutures (62% of controls).

In Rodway's (20) series 53% required sutures (44% of controls).

In Thoms (21) series of 292 primigravidae 85.3% required sutures.

By Read's method (26) of preparation for childbirth, therefore, there does not seem to be any lessening of the need for perineal repair in primigravidae.

The blood loss in the third stage did not vary greatly in the three groups, an average of 9 oz. in the hypnosis group, 11 oz. in the controls and 8.8 oz. in Read's group. There is some evidence in dentistry that less bleeding occurs from sockets when teeth are extracted under hypnosis, probably because the blood pressure remains normal in the calm and relaxed patient.

As the effect of hypnosis depends very much on individual rapport one would expect a greater benefit in those patients where the obstetrician-hypnotist trained the patient, and was also present at some part of her labour, preferably at the beginning, at the end of the first stage and the end of the second stage to re-inforce the trance.

By comparing the results of labour in the hypnosis group of those in whom the hypnotist was present at some stage of their labour and those who only had the hypnosis ante-natal training, but who managed their labour by auto-hypnosis themselves, the following findings emerge. In the primigravidae the hypnotist was present during the labour of case numbers:-

1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 16, 17, 20, 23, 24, 25, 30, 32, 35, 36, 41 and 43, i.e. in 22 of the 45 or 50%.

The comparison of the two groups shows:-

Auto-hypnosis Primigravidae. (45 patients).

	No. of cases.	Average age.	Average durn. of 1st stage.	Average durn. of total labour.	Epis. or tear rate
Hypnotist present at the labour.	22	30 yrs. 6 mths.	6 hrs. 36 mins.	7 hrs. 54 mins.	10 or 46%
Hypnotist not present at the labour.	23	25 yrs. 8 mths.	11 hrs. 8 mins.	12 hrs. 24 mins.	14 or 61%

	Required Analgesia in 1st stage.	Required Analgesia in 2nd stage.	Required Analgesia for suturing.
Hypnotist present at the labour.	3 or 13%	0	4 or 18%.
Hypnotist not present at the labour.	12 or 52%	6 or 26%	4 or 17%.

If a comparison be made of the duration of the first stage of labour (in 5 minute units) in primigravidae whose husbands are manual workers, in the three groups of:-

(1) Auto-hypnosis trained patients when the hypnotist is not present at the labour to re-inforce the trance.

(2) Control group.

(3) "Read" trained physiotherapy patients.

The appropriate tests of significance reveal that there is significantly less variability in the recorded duration of labour in group (1). ($P < .01$) However, the lower mean value of duration in this group (1) 143.94 (5 minute units) is not significantly lower than the 183.0 and 178.0 (5 minute units) of the other groups (2) and (3). ($P > .25$) The inherent variability in duration of the first stage of labour plus the small numbers make it impossible to conclude that the lower mean duration in this segment of the experimental group is real.

If, however, the duration of the first stage of labour (in 5 minute units) when the hypnotist is present in labour to re-inforce the trance, is compared with the duration when auto-hypnosis only is used, in the primigravidae whose husbands are manual workers, there is a very significant difference, the mean value of duration in the two groups being 77.2 and 143.9 (5 minute units), and ($P < .01$)

Thus the best results are obtained by the attendance of the obstetrician-hypnotist at the labour to encourage and deepen the trance state. This is unfortunately difficult to achieve in busy hospital practice because of the pressure of other work. Probably the ideal person to undertake hypnosis training in hospital practice would be the interested Registrar who lives in the hospital. However, even without attendance at the confinement, the auto-hypnosis patient is helped in her labour very considerably as compared with the control groups.

A comparison of results
in 25 multigravid
patients taught auto-hypnosis
with 25 controls
and 25 patients trained by
Read's relaxation method.

M U L T I G R A V I D A E.

Table 4. Auto-hypnosis Trained Multiparous Patients.

No.	Name.	Age.	Parity.	No. of Ante-Natal Hypnotic Sess.	Depth of Ante Natal trance.
1.	Docker P*	39 p.p.*	3 aet 15,12 & 9.	3	Medium.
2.	Little P	43 p.p.	2 aet 20 & 14. forceps.	6	Deep.
3.	Clark	29 p.p.	2 aet $3\frac{1}{2}$ & 2.	4	Light.
4.	Mann P	38	1 aet 17 S.D.	4	Light.
5.	Wilkinson P	40 p.p.	1 aet 10 + 5 misc.	5	Deep.
6.	Johnston P	27	1 aet 4 forceps.	5	Medium.
7.	Thomas P	28 p.p.	1 S.B. 1 yr. ago.	5	Medium.
8.	Routledge P	28 p.p.	1 aet 4.	5	Medium.
9.	Wannop	41	2 Twins aet 14 & 10.	3	Medium.
10.	Leeson	42	1 aet 13 forceps.	4	Medium.
11.	Weir P	33 p.p.	1 aet 7.	6	Deep.
12.	Livingstone	28	1 aet 4.	7	Medium.
13.	Dias P	34 p.p.	3 aet 12, 10 & 3.	6	Light.
14.	Fell	34 p.p.	2 aet 8 & 5.	6	Medium.
15.	Martin	32	1 aet 8.	6	Light.
16.	Hilton P	21	1 aet 2.	5	Medium.
17.	Black	24	1 S.B. 2 yrs. ago.	7	Medium.
18.	Watson	23	1 aet 3 + 1 misc.	6	Medium.
19.	Bennett P	27	3 - 1 aet 7. 2 S.B.5 & 3 yrs. ago.	6	Medium.
20.	Bruce	37	1 S.B. 3 yrs. ago.	5	Medium.
21.	O'tun	35	2 aet 8 & 6.	5	Medium.
22.	Harper	33	2 aet 8 F to P & 6, died at 6 weeks + 1 misc.	7	Medium.
23.	Tomlinson	29	1 aet 3 forceps.	3	Light.
24.	Harrison P	29	1 S.B. 2 yrs. ago + 1 misc.	4	Medium.
25.	Holliday P	21	1 S.B. 2 yrs. ago.	4	Deep.
	Total:	795 years.			5 light
	Average:	31 yrs. 10 mths.		5 sessions.	16 medium
					4 deep.

*P = Attended by hypnotist in labour. *p.p. = private patients.

13 P patients. Age Total: 393 years.
Average: 30 years 3 months.

12 non-P patients. Total: 402 years.
Average: 33 years 6 months.

No.	Length of labour in hours.								3rd stage blood loss in ozs.
	1st stage		2nd stage		3rd stage	Total			
	Hours.	Mins.	Hours.	Mins.	Mins.	Hours.	Mins.		
1.	3	30	0	10	5	3	45		3
2.	8	0	0	15	5	8	20		6
3.	4	0	0	30	10	4	40		5
4.	5	0	0	15	5	5	20		4
5.	9	0	0	10	10	9	20		4
6.	3	45	0	30	15	4	30		10
7.	4	0	0	30	10	4	40		1
8.	5	0	1	0	10	6	10		18
9.	4	10	0	20	20	4	50		4
10.	11	30	0	30	15	12	15		8
11.	4	30	0	10	5	4	45		2
12.	4	20	0	15	5	4	40		5
13.	2	30	0	10	10	2	50		5
14.	8	0	0	15	15	8	30		14
15.	21	15	0	20	10	21	45		2
16.	9	0	0	50	5	9	55		½
17.	11	15	1	0	15	12	30		15
18.	6	50	0	20	10	7	20		5
19.	2	50	0	15	5	3	10		9
20.	12	0	0	20	10	12	30		2
21.	5	45	0	5	15	6	15		4
22.	2	10	0	20	10	2	40		2
23.	4	30	0	40	10	5	20		2
24.	4	30	0	25	15	5	10		18
25.	1	30	0	25	5	2	0		6
Total:	158 hrs.	50 mins.	10 hrs.		4 hrs. 10 mins.				173 hrs. 10 mins.
Average:	6 hrs.	21 mins.	24 mins.		10 mins.				6 hrs. 56 mins.

Total: 154 ozs. blood loss.

Average: 6.2 ozs.

1st stage.	Total duration of labour.
*P patients Total: 64 hrs. 55 mins.	P. patients Total: 71 hrs. 55 mins.
Average: 4 hrs. 59 mins.	Average: 5 hrs. 32 mins.
Non P patients Total: 93 hrs. 55 mins.	Non P. patients Total: 101 hrs. 15 mins.
Average: 7 hrs. 49 mins.	Average: 8 hrs. 26 mins.

*P patients attended by hypnotist in labour.

No.	Tear or Episiotomy.	Type of delivery.	Analgesics given before delivery.	Analgesics given for op. delivery or for perineal suture.
1.	Nil.	S.D.	Gas & air for 15 mins.	Nil.
2.	Epis.	S.D.	Nil.	Nil.
3.	Tear 2nd degree.	S.D.	Gas & air for 10 mins.	Local.
4.	Nil.	S.D.	Gas & air for 10 mins.	Nil.
5.	Tear 1st degree.	S.D.	Nil.	Local.
6.	Nil.	S.D.	Nil.	Nil.
7.	Nil.	S.D.	Nil.	Nil.
8.	Nil.	Low forceps for cramp.	1/6 gr Morphia.	Nil.
9.	Nil.	S.D.	Nil.	Nil.
10.	Nil.	S.D.	Nil.	Nil.
11.	Epis.	S.D. Cord 3 times round neck.	Nil.	Nil.
12.	Nil.	S.D.	50 mgm. Pethidine.	Nil.
13.	Nil.	S.D.	Nil.	Nil.
14.	Tear 1st degree.	S.D.	Nil.	Local.
15.	Epis.	S.D.	Gas & air.	Local.
16.	Nil.	S.D.	100 mgm. Pethidine.	Nil.
17.	Tear 2nd degree.	S.D.	Nil.	Nil.
18.	Nil.	S.D.	Nil.	Nil.
19.	Nil.	S.D.	Nil.	Nil.
20.	Epis.	S.D.	50 mgm. Pethidine & Gas & air.	Nil.
21.	Nil.	S.D.	Nil.	Nil.
22.	Nil.	S.D.	Nil.	Nil.
23.	Epis.	S.D.	Nil.	Nil.
24.	Tear.	S.D.	Nil.	Nil.
25.	Tear 1st degree.	S.D.	Nil.	Nil.

11 Tear or Epis.
14 Nil.

4 required Gas & air only. 4 local
17 " Nil.
2 " Pethidine only 21 nil,
1 " Gas & air. + Peth.
1 " Morphia.

No.	Baby's weight in lbs.& oz.	Breast fed at time of discharge.	Pregnancy Remarks and reason for using hypnosis.
1.	9 lbs.	Yes.	Hyperemesis; insomnia. Fear of labour. Had had a P.F.R. since last confinement. A.P.H.
2.	7.12 lbs.	Yes.	Fear of labour. Para 2 - 20 and 14. 5 days in labour and forceps with first. 3 days in labour and forceps with second. Insomnia. Did not want this baby
3.	8.5 lbs.	Yes.	Insomnia. Had had T.B. Fear of labour.
4.	6.4 lbs.	Yes.	Had P.P.H and feared recurrence.
5.	7.13 lbs.	Yes.	5 miscarriages. Fear of stitches P.E.T. - A.P.H.
6.	8.6 lbs.	Yes.	Routine.
7.	7.1 lbs.	Yes.	1 S.B. Conc.Acc.Haem. Fear. Insomnia. Headaches.
8.	5.15 lbs.	Yes.	Threatened abortion. 4 years trying for second child. Anxious.
9.	7.5 lbs.	Yes.	Last labour lasted 50 hours. Fear of a long labour this time.
10.	5.10 lbs.	Yes.	Fear of another difficult labour. 13 years since last, a forceps delivery, 5.4 lbs.
11.	5.11 lbs.	Yes.	Hyperthyroidism. Her mother died at beginning of this pregnancy.
12.	8.4 lbs.	Yes.	Anxiety. Orthopaedic sister. Insomnia.
13.	7.5 lbs.	Yes.	Anxiety. Did not enjoy her previous labours.
14.	9.6 lbs.	Yes.	Inertia with first child. Anxiety, headaches, insomnia.
15.	6.13 lbs.	Yes.	Anxiety. Threatened abortion.
16.	7.12 lbs.	Yes.	Last child a face pres., and had P.P.H. Fear & anxiety re recurrence. P.A. of pregnancy.
17.	7.12 lbs.	Yes.	Anencephalic last baby. Fear of monster. Depressed. Insomnia.
18.	6.8 lbs.	Yes.	Anxious type. Migraine ++
19.	9 lbs.	Yes.	2 S.B. hydrocephalics. Fear of repetition.
20.	7.10 lbs.	Yes.	Fear of S.B. and her own death.
21.	6.15 lbs.	Yes.	Fear of long labour, previous ones 24 and 18 hours. Nursing sister.
22.	6.3 lbs.	Yes.	One difficult delivery. One child died at 6 weeks. One misc. & fear for this child. Threatened to miscarry.

No.	Baby's weight in lbs.	Breast fed at time of discharge.	Pregnancy Remarks and reason for using hypnosis.
23.	6.9 lbs.	Yes.	1 difficult delivery, occ. posterior. 4 days in labour. Forceps. Fear of recurrence.
24.	8.2 lbs.	Yes.	Previous anencephalic foetus and a misc. Fear of monster.
25.	6.6 lbs.	Yes.	Previous hydrocephalic foetus. Fear of recurrence.

Total: 184 lbs. 5 ozs.
Average: 7 lbs. 6 ozs.

Table 5. Untrained Multigravidae.

No.	Name.	Age.	Parity.
1.	Lynn	25	2
2.	Teasdale	26	1 anenceph.
3.	Lightfoot	47	5
4.	Armstrong	25	1
5.	Atkinson	25	2 (1 spastic)
6.	Bainbridge	37	3
7.	Beaty	34	1
8.	Boyd	21	1
9.	Brooks.	34	5
10.	Brown	23	3
11.	Carruthers.	28	2
12.	Dawson	27	1
13.	Ewan	26	4
14.	Ferguson	26	2
15.	Fox	33	1 L.U.S.C., inertia.
16.	Hodgson	36	3
17.	Kaye	28	1
18.	Hey	26	1
19.	Armstrong	38	1 + 1 misc.
20.	Gardiner	28	1
21.	Mason	23	1
22.	Crossly	25	1
23.	Barrow	34	3
24.	Ritchie	35	2
25.	Hill	23	1
	Total:	733.	
	Average:	29 years 4 months.	

No.	Length of labour in hours.						
	1st stage		2nd stage	3rd stage	Total		3rd stage blood loss in ozs.
	Hours.	Mins.	Mins.	Mins.	Hours.	Mins.	
1.	4	0	15	15	4	30	4
2.	9	10	50	10	10	10	12
3.	11	15	55	5	12	15	2
4.	4	15	15	15	4	45	5
5.	5	30	20	10	6	0	8
6.	7	0	20	10	7	30	2
7.	2	35	20	5	3	0	6
8.	13	30	45	5	14	20	2
9.	6	0	15	10	6	25	8
10.	2	40	10	10	3	0	2
11.	6	50	10	10	7	10	5
12.	31	40	55	5	32	40	6
13.	19	15	10	20	19	45	16
14.	11	30	10	5	11	50	6
15.	6	45	55	25	8	5	15
16.	24	0	10	15	24	30	6
17.	10	0	35	5	10	40	6
18.	8	45	20	10	9	15	8
19.	3	55	20	15	4	30	8
20.	2	30	15	15	3	0	6
21.	9	20	30	15	10	0	10
22.	9	40	5	10	10	0	4
23.	22	0	20	15	22	35	5
24.	3	45	5	10	4	0	8
25.	7	50	30	10	8	30	2
Total:	243 hrs. 40 mins.		9 hrs. 55 mins.	4 hrs. 10 mins.	258 hrs. 25 mins.		
Average:	9 hrs. 45 mins.		24 mins.	11 mins.	10 hrs. 20 mins.		

Total: 157 ozs. blood loss

Average: 6.3 ozs. " "

No.	Tear or Episiotomy.	Type of delivery.	Analgesics given before delivery.
1.	Nil.	S.D.	Gas & air.
2.	Nil.	S.D.	Seconal, 3 gr. Pethidine, 200 mgm. Gas & air.
3.	Epis.	S.D.	Trilene.
4.	Tear 1st degree.	S.D.	Pethidine, 100 mgm.
5.	Tear 1st degree.	S.D.	Gas & air.
6.	Nil.	S.D.	Welldorm. Gas & air.
7.	Tear 1st degree.	S.D.	Nil.
8.	Nil.	S.D.	Welldorm. Pethidine, 100 mgm. Trilene.
9.	Nil.	S.D.	Welldorm. Pethidine, 100 mgm. Gas & air.
10.	Nil.	S.D.	Gas & air.
11.	Nil.	S.D.	Gas & air.
12.	Nil.	S.D.	Welldorm. Pethidine, 100 mgm. Trilene.
13.	Nil.	S.D.	Seconal. Pethidine, 100 mgm. Trilene.
14.	Nil.	S.D.	Welldorm. Gas & air. Pethidine, 100 mgm.
15.	Nil.	S.D.	Gas & air.
16.	Nil.	S.D.	Welldorm. Gas & air.
17.	Tear 2nd degree.	S.D.	Welldorm. Pethidine, 100 mgm. Gas & air.
18.	Epis.	S.D.	Welldorm. Gas & air.
19.	Tear 1st degree.	S.D.	Trilene.
20.	Tear 1st degree.	S.D.	Gas & air.
21.	Nil.	S.D. Face to pubes.	Pethidine, 100 mgm. Gas & air.
22.	Tear 1st degree.	S.D.	Pethidine, 100 mgm. Gas & air.
23.	Tear 1st degree.	S.D.	Gas & air.
24.	Tear 1st degree.	S.D.	Sod. Amytal, 3 grs. Gas & air.
25.	Nil.	S.D.	Pethidine, 100 mgms. Gas & air.
	14 Nil.	11 Tear or Episiotomy.	

No.	Analgesics given for op. delivery or for perineal suture.	Baby's weight in lbs. and ozs.	Breast fed at discharge.
1.	Nil.	8 lbs. 9 oz.	Yes.
2.	Nil.	6 lbs.14 oz.	Yes.
3.	Omnopon, gr. $\frac{1}{3}$. Local.	6 lbs.11 oz.	Yes.
4.	Local.	8 lbs. 6 oz.	Yes.
5.	Nil.	7 lbs. 2 oz.	Yes.
6.	Nil.	6 lbs. 4 oz.	Yes.
7.	Local.	6 lbs.13 oz.	Yes.
8.	Nil.	5 lbs. 0 oz.	Yes.
9.	Nil.	6 lbs. 6 oz.	Yes.
10.	Nil.	8 lbs.13 oz.	Yes.
11.	Nil.	7 lbs.10 oz.	Yes.
12.	Nil.	8 lbs.13 oz.	No.
13.	Nil.	8 lbs.12 oz.	Yes.
14.	Nil.	7 lbs. 3 oz.	Yes.
15.	Nil.	7 lbs. 7 oz.	Yes.
16.	Nil.	7 lbs. 5 oz.	Yes.
17.	Omnopon, gr. $\frac{1}{3}$. Local.	7 lbs.14 oz.	Yes.
18.	Local.	7 lbs.11 oz.	Yes.
19.	Local.	7 lbs.10 oz.	Yes.
20.	Local.	5 lbs. 8 oz.	Yes.
21.	Nil.	8 lbs. 8 oz.	Yes.
22.	Local.	8 lbs. 0 oz.	Yes.
23.	Local.	9 lbs. 2 oz.	Yes.
24.	Local.	8 lbs. 3 oz.	Yes.
25.	Nil.	10 lbs. 0 oz.	Yes.
	Total:	190 lbs. 8 ozs.	
	Average:	7 lbs. 10 ozs.	

No.	Analgesics given for op. delivery or for perineal suture.	Baby's weight in lbs. and ozs.	Breast fed at discharge.
1.	Nil.	8 lbs. 9 oz.	Yes.
2.	Nil.	6 lbs.14 oz.	Yes.
3.	Omnopon, gr. $\frac{1}{3}$. Local.	6 lbs.11 oz.	Yes.
4.	Local.	8 lbs. 6 oz.	Yes.
5.	Nil.	7 lbs. 2 oz.	Yes.
6.	Nil.	6 lbs. 4 oz.	Yes.
7.	Local.	6 lbs.13 oz.	Yes.
8.	Nil.	5 lbs. 0 oz.	Yes.
9.	Nil.	6 lbs. 6 oz.	Yes.
10.	Nil.	8 lbs.13 oz.	Yes.
11.	Nil.	7 lbs.10 oz.	Yes.
12.	Nil.	8 lbs.13 oz.	No.
13.	Nil.	8 lbs.12 oz.	Yes.
14.	Nil.	7 lbs. 3 oz.	Yes.
15.	Nil.	7 lbs. 7 oz.	Yes.
16.	Nil.	7 lbs. 5 oz.	Yes.
17.	Omnopon, gr. $\frac{1}{3}$. Local.	7 lbs.14 oz.	Yes.
18.	Local.	7 lbs.11 oz.	Yes.
19.	Local.	7 lbs.10 oz.	Yes.
20.	Local.	5 lbs. 8 oz.	Yes.
21.	Nil.	8 lbs. 8 oz.	Yes.
22.	Local.	8 lbs. 0 oz.	Yes.
23.	Local.	9 lbs. 2 oz.	Yes.
24.	Local.	8 lbs. 3 oz.	Yes.
25.	Nil.	10 lbs. 0 oz.	Yes.
	Total:	190 lbs. 8 ozs.	
	Average:	7 lbs. 10 ozs.	

Table 6.

Read Trained Multigravidae.

No.	Name.	Age.	Parity.
1.	Quarrie	39	2
2.	Ward	31	2
3.	Tweddle	29	2 + 1 misc.
4.	Balfe	38	1 + 1 misc.
5.	Mattinson	28	1
6.	Lavers	31	1
7.	Watson	27	0
8.	Wren	36	1
9.	Whittaker	22	1 + 1misc.
10.	Whittle	30	1
11.	McSorley	29	1
12.	Bone	26	1
13.	McCarthey	33	2
14.	Nicholson	32	2
15.	Binder	31	3
16.	Elliot	22	1
17.	Phillips	43	1
18.	Wilkie	27	1
19.	Horne	27	1
20.	Longcake	23	1
21.	Beck	28	3
22.	Loughran	35	1 + 1 misc.
23.	Telford	38	3
24.	Robertson	34	1
25.	Smallwood	30	1
	Total:	769	
	Average:	30 years 9 months.	

No.	Length of labour in hours.							3rd stage blood loss in ozs.
	1st stage		2nd stage		3rd stage	Total		
	Hours.	Mins.	Hours.	Mins.	Mins.	Hours.	Mins.	
1.	8	15	0	40	15	9	10	20
2.	12	40	2	5	30	15	15	10
3.	35	0	0	10	10	35	20	5
4.	1	15	0	30	5	1	50	3
5.	1	25	0	30	10	2	5	3
6.	7	35	0	10	5	7	50	10
7.	18	0	1	15	20	19	35	10
8.	16	30	0	45	15	17	30	6
9.	2	50	0	20	5	3	15	13
10.	3	20	0	25	10	3	55	30
11.	4	50	0	10	5	5	5	6
12.	9	10	0	20	10	9	40	4
13.	12	10	0	35	5	12	50	8
14.	15	20	0	30	15	16	5	10
15.	12	0	0	20	10	12	30	1
16.	8	15	0	40	15	9	10	4
17.	8	5	0	5	10	8	20	6
18.	9	0	0	15	10	9	25	10
19.	15	0	0	15	5	15	20	10
20.	11	30	0	15	10	11	55	4
21.	4	0	0	10	5	4	15	4
22.	9	30	0	25	15	10	10	10
23.	3	45	0	45	10	4	40	2
24.	3	40	0	40	5	4	25	10
25.	3	30	0	15	15	4	0	4
Total:	231 hrs. 35 mins.		10 hrs. 40 mins.		4 hrs. 30 mins.	253 hrs. 35 mins.		
Average:	9 hrs. 16 mins.		26 mins.		11 mins.	10 hrs. 9 mins.		

Total: Blood loss 203 ozs.

Average: 8.1 ozs.

No.	Tear or Episiotomy.	Type of delivery.	Analgesics given before delivery.
1.	Nil.	S.D.	(Welldorm. (Pethidine, 100 mgm. (Trilene.
2.	Epis.	Forceps	(Seconal, gr.1½. (Pethidine, 100 mgm. (Gas & air.
3.	Tear 1st degree.	S.D.	(Pethidine, 200 mgm. (Gas & air.
4.	Epis.	Breech S.D.	Nil.
5.	Tear 2nd degree.	S.D.	Gas & air.
6.	Tear 2nd degree	S.D.	Gas & air.
7.	Epis.	Forceps	(Welldorm. (Omnopon. (Pethidine, 100 mgm. (Trilene.
8.	Tear 1st degree.	S.D.	(Welldorm. (Pethidine, 100 mgms. (Gas & air.
9.	Epis.	S.D.	Gas & air.
10.	Epis.	S.D.	Gas & air.
11.	Tear 2nd degree.	S.D.	Nil.
12.	Tear 2nd degree.	S.D.	(Welldorm. (Trilene.
13.	Nil.	S.D.	Trilene.
14.	Nil.	S.D.	(Welldorm. (Pethidine, 100 mgm. (Gas & air.
15.	Nil.	S.D.	(Sodium Amytal, gr.3. (Pethidine, 50 mgm.
16.	Tear 1st degree.	S.D.	(Pethidine, 100 mgm. (Gas & air.
17.	Tear 2nd degree.	S.D.	Pethidine, 100 mgm.
18.	Tear 1st degree.	S.D.	Nil.
19.	Tear 1st degree.	S.D.	Pethidine, 100 mgm.
20.	Epis.	S.D.	(Soneryl, gr. 1½ (Pethidine, 100 mgm. (Gas & air.
21.	Tear 1st degree.	S.D.	Gas & air.
22.	Tear 1st degree.	S.D.	(Chloral. (Pethidine, 100 mgm. (Gas & air.
23.	Nil.	S.D.	Gas & air.

No.	Tear or Episiotomy.	Type of delivery.	Analgesics given before delivery.
24.	Nil.	S.D.	(Pethidine, 100 mgm. (Gas & air.
25.	Nil.	S.D.	(Pethidine, 100 mgm. (Gas & air.

18 Tear or Epis.
7 Nil.

2 Forceps
1 Breech
22 S.D.

No.	Analgesics given for op. delivery or for perineal suture.	Baby's weight in lbs. & ozs.	Breast fed.
1.	Nil.	9.11 lbs.	Yes.
2.	(Pudendal. (Omnopon.	6.1 lbs.	Yes.
3.	Local.	7.7 lbs.	Yes.
4.	Local.	9.10 lbs.	No.
5.	Local.	8.10 lbs.	Yes.
6.	Local.	10.9 lbs.	Yes.
7.	Pudendal.	9.0 lbs.	Yes.
8.	Local.	6.9 lbs.	Yes.
9.	Local.	7.0 lbs.	Yes.
10.	Omnopon & local.	8.5 lbs.	Yes.
11.	Local.	7.14 lbs.	Yes.
12.	Local.	6.11 lbs.	Yes.
13.	Nil.	8.4 lbs.	Yes.
14.	Nil.	7.10 lbs.	Yes.
15.	Nil.	7.0 lbs.	No.
16.	Local.	8.2 lbs.	Yes.
17.	Local.	7.12 lbs.	Yes.
18.	Local.	8.5 lbs.	No.
19.	Local.	7.6 lbs.	Yes.
20.	Omnopon & local.	8.4 lbs.	Yes.
21.	Local.	7.3 lbs.	Yes.
22.	Local.	7.9 lbs.	Yes.
23.	Nil.	7.5 lbs.	No.
24.	Nil.	8.0 lbs.	No.
25.	Nil.	5.8 lbs.	Yes.

Total: 195 lbs. 11 ozs.,

Average: 7 lbs. 13 ozs.

From these tables it can be seen that the results are similar to the primigravid group:-

Multigravidae.

	Average age.	Average length of labour.	Average blood loss.	Average baby's weight.
Auto-hypnosis Group.	31 yrs.10 mths.	6 hrs.56 mins.	6.2 ozs.	7 lbs. 6 ozs.
Control Group.	29 yrs. 4 mths.	10 hrs. 20 mins.	6.3 ozs.	7 lbs.10 ozs.
Group trained by Read's Method.	30 yrs. 9 mths.	10 hrs. 9 mins.	8.1 ozs.	7 lbs.13 ozs.

Again although a slightly older age group, the hypnosis patients have an average length of labour of a little more than half of the control group, and the group trained by Read's method, and as in the primigravid series this reduction is all in the first stage (see graph).

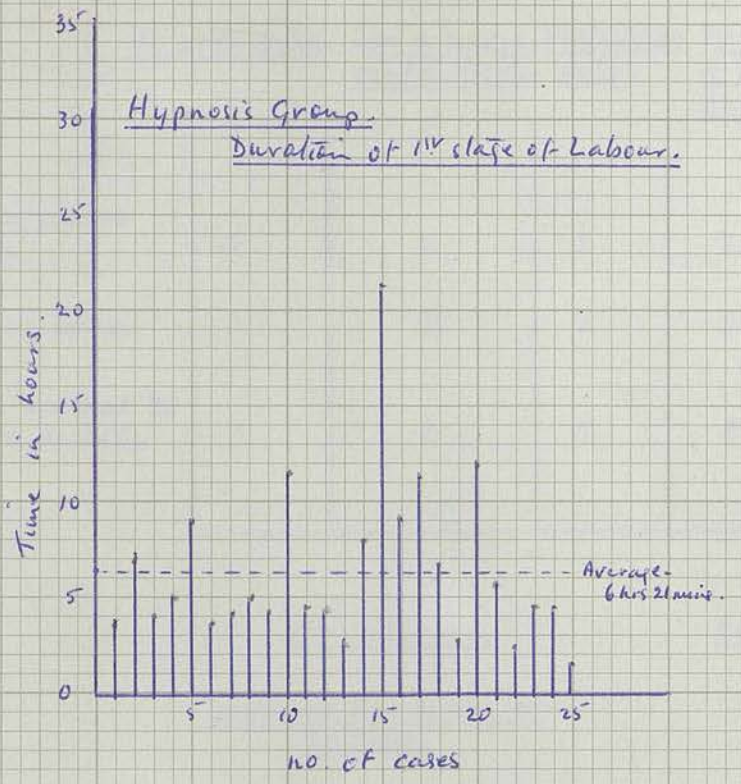
Average duration of the stages of labour in hours and mins.

	1st stage.	2nd stage.	3rd stage.	Total.
Hypnosis Group.	6 hrs. 21 mins.	24 mins.	10 mins.	6 hrs. 56 mins.
Control Group.	9 hrs. 45 mins.	24 mins.	11 mins.	10 hrs. 20 mins.
Group trained by Read's method.	9 hrs. 16 mins.	26 mins.	11 mins.	10 hrs. 9 mins.

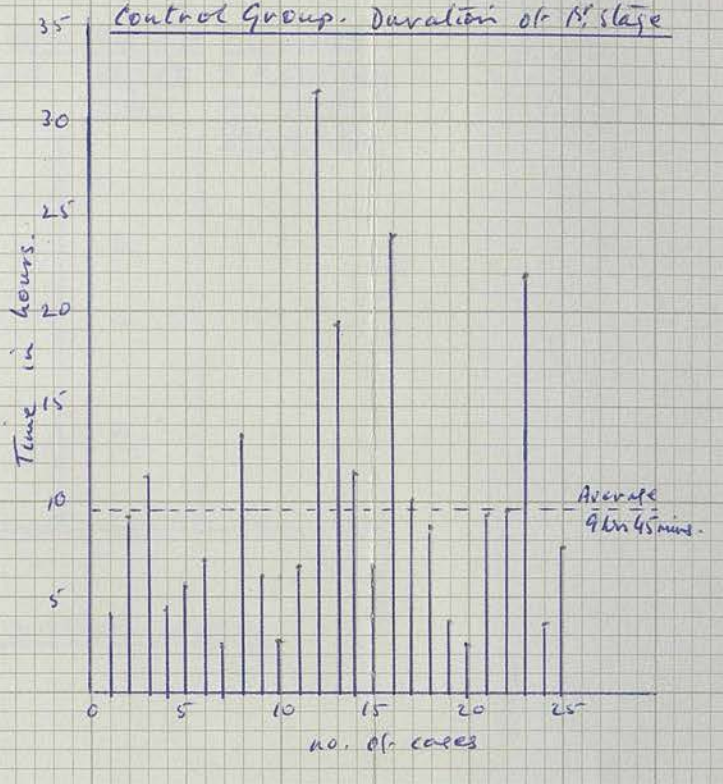
The difference is less striking in the multigravidae for there is less tension and fear for a known experience, than for an unknown. The hypnosis cases were, however, mainly selected for difficulty and distress in a previous labour, with anxiety and fear for this labour, and therefore might be expected to have a longer first stage. In fact the average was shorter than the normal controls whose previous labours had been uncomplicated. As in the primigravid series, the multiparous auto-hypnosis patients required much less analgesia in each stage of labour than the controls or Read trained group.

MULTIGRAVIDAE.

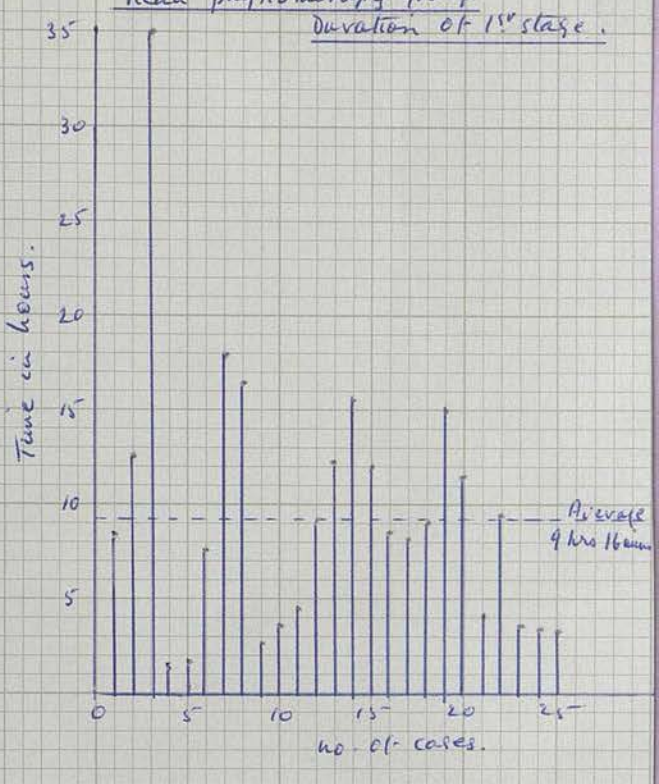
Hypnosis Group.
Duration of 1st stage of Labour.



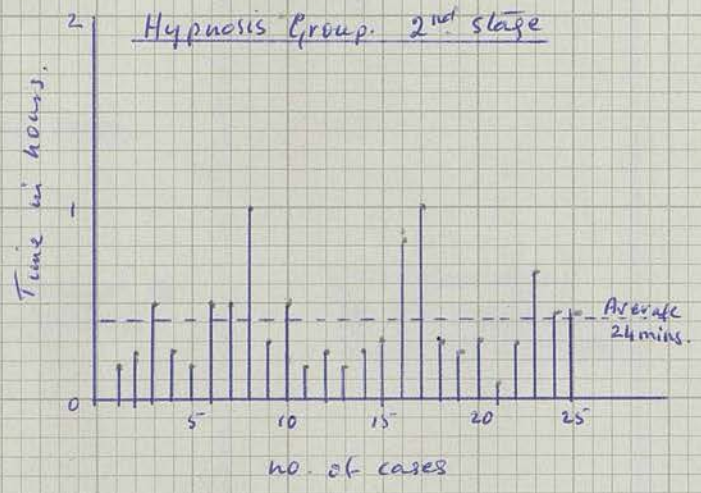
Control Group. Duration of 1st stage



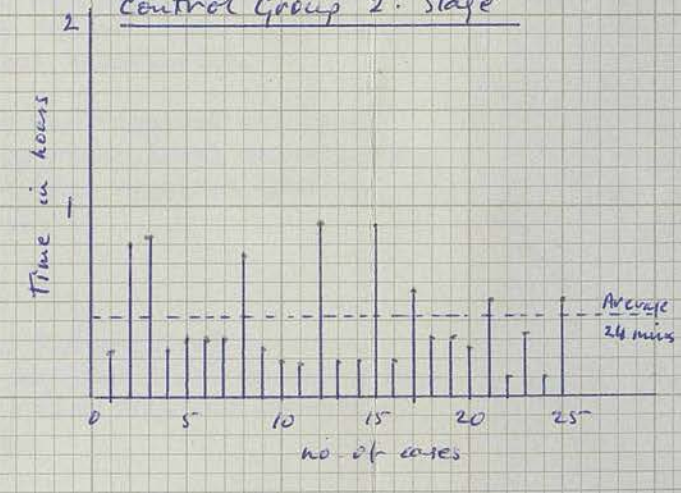
"Read" physiotherapy Group.
Duration of 1st stage.



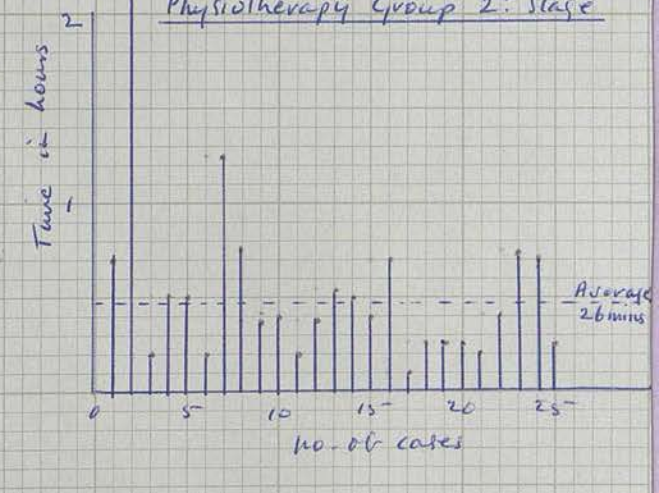
Hypnosis Group. 2nd stage



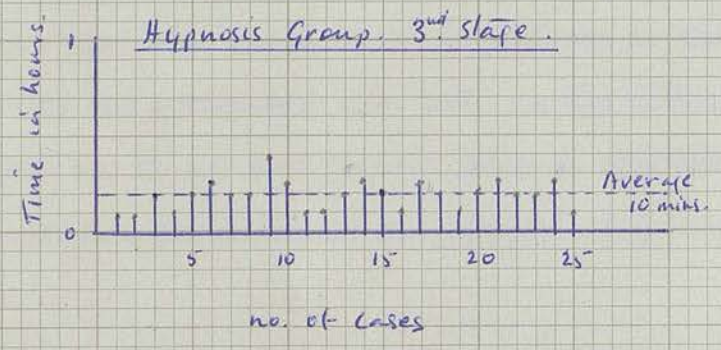
Control Group 2nd stage



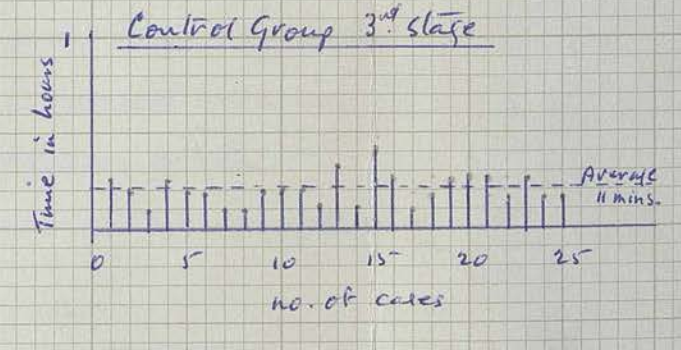
Physiotherapy Group 2nd stage



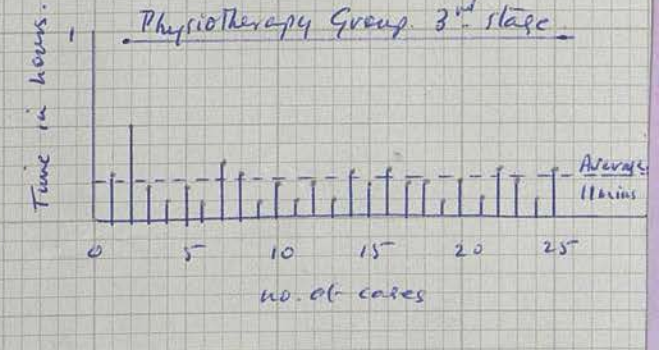
Hypnosis Group. 3rd stage.



Control Group 3rd stage



Physiotherapy Group 3rd stage.



Multigravidae. (25 patients). Before delivery required:-

	No analgesia.	Gas & Air + or-Welldorm.	Pethidine only.	Pethidine & Gas & Air.	Morphia gr.1/6 only.	Pethidine + a barbit. or opiate & Gas & air.
Auto-hypnosis Group.	17	4	2	1	1	-
Control Group	1	12	1	9	-	2
Group trained by Read's Method.	3	8	2	8	-	4

	For Delivery. Required Gas & air or Trilene.	For perineal suture.
Auto-hypnosis Group.	5	11 or 44% required sutures. 4 or 36% of these required a local anaesthetic.
Control Group.	23	11 or 44% required sutures. All required local anaesthesia, and 2 also required Omnopon, gr. $\frac{1}{3}$.
Group trained by Read's Method.	20 (including 2 Pudendal block for forceps)	18 or 72% required sutures. All required local anaesthesia, and 3 also required Omnopon, gr. $\frac{1}{3}$.

For the first stage of the 25 patients in the hypnosis group 3 required Pethidine and 1 Morphine, i.e. 16%; in the controls 11 required Pethidine, i.e. 44%, and in the Read trained group 14 required Pethidine, or 56%, a significant diminution in the analgesic requirements of the auto-hypnosis group.

In the second stage of labour 5 of the hypnosis group required gas and air or trilene, i.e. 20%. In the control group 23 or 92%

required an inhalation analgesia, and in the Read trained group 19 or 76% required it. Again a significant diminution in analgesic requirements in the hypnosis group. The duration of labour in the second stage was almost equal in all three groups as one would expect, an average of 24 minutes in both the hypnosis and control group, 26 minutes in the Read group. The average blood loss was 6.2 ozs. in the hypnosis group, 6.3 ozs., in the controls and 8.1 ozs. in the Read group.

Other factors that might influence duration of labour and analgesic requirements were also assessed as follows:-

Hypnosis Trained Multigravidae.

No.	Time of booking in mths	Height.	B.P. (1st visit)	Husband's Occupation.	Hb. (1st visit)	Religion.	Pregnancy Complics.
1.	$2\frac{1}{2}$	5' 2"	140/80	Managing Director.	82%	C.of E.	Pyelitis.
2.	3	5' 0"	140/70	Butcher. M	90%	C.of E.	Nil.
3.	$3\frac{1}{2}$	5' 6"	120/50	Chemist.	85%	C.of S.	Pulm.T.B.
4.	$2\frac{1}{2}$	5' $1\frac{1}{2}$"	134/78	Civil Servant.	72%	C.of E.	Anaemia.
5.	2	5' 6"	135/80	Farmer. M	94%	C.of E.	Nil.
6.	3	5' $5\frac{1}{2}$"	120/80	Heating Engineer. M	78%	C.of E.	Nil.
7.	4	5' $2\frac{1}{2}$"	120/80	Architect.	96%	C.of E.	Nil.
8.	$1\frac{1}{2}$	5' 10"	135/80	Engineer. M	90%	C.of E.	Thr. abortion.
9.	4	5' 5"	110/70	Shop Manager.	86%	R.C.	Nil.
10.	5	4' $9\frac{1}{2}$"	120/70	Van Driver. M	78%	C.of E.	Nil.
11.	$3\frac{1}{2}$	5' 4"	140/80	Managing Director.	74%	C.of E.	Nil.
12.	2	5' $6\frac{3}{4}$"	124/70	Solicitor.	56%	C.of E.	Med.anaemia.
13.	5	5' 3"	120/80	Hairdresser. M	80%	R.C.	Nil.
14.	2	5' 2"	110/70	Farmer. M	86%	C.of E.	Nil.
15.	2	5' $5\frac{1}{4}$"	120/78	Postman. M	88%	C.of E.	Nil.
16.	4	5' $4\frac{1}{2}$"	130/76	Leather Worker. M	84%	C.of E.	Megalo-blastic anaemia.
17.	3	5' 4"	100/60	Electrician. M	88%	C.of E.	Nil.
18.	$2\frac{1}{2}$	5' $3\frac{1}{2}$"	110/70	Policeman. M	80%	C.of E.	Nil.
19.	3	5' $3\frac{1}{2}$"	122/64	Clergyman.	76%	C.of E.	Nil.
20.	3	5' 6"	126/70	Chef. M	80%	C.of E.	Post.mat. A.R.M.
21.	$3\frac{1}{2}$	5' 5"	130/64	Dentist(wife nurse)	80%	C.of E.	Nil.
22.	2	5' $5\frac{1}{2}$"	120/70	Clergyman.	76%	C.of E.	Nil.
23.	$3\frac{1}{2}$	5' 0"	128/80	Railway Clerk.	84%	C.of E.	Nil.
24.	$2\frac{1}{2}$	5' $5\frac{1}{2}$"	124/92	Railway Fireman. M	96%	C.of E.	Nil.
25.	$4\frac{1}{2}$	5' 5"	120/80	Farm Labourer. M	90%	C.of E.	Nil.
	Total:	133' $3\frac{1}{2}$"	140/90+	Nil. Total:	2069	2 R.C.	
	Average:	5' 4"		Average:	83%	1 C.of S.	
	1 under	5' 0"				22 C.of E.	

6 booked on or after 4th month.

Manual Worker. M = 14
Non Manual Worker: 11

7 Ante Natal Complications.

Controls: Multigravidae.

No.	Time of booking in mths.	Height.	B.P. (1st visit)	Husband's Occupation.	Hb. (1st visit)	Religion.	Pregnancy Complics.
1.	8 Social.	5' 4½"	130/90	Textile Worker. M	92%	C.of E.	Nil.
2.	3	5' 7"	112/70	Farm Worker. M	80%	Meth.	Nil.
3.	3	5' 4"	145/85	Farmer. M	70%	C.of E.	Nil.
4.	7½	5' 2"	112/76	Factory Worker. M	90%	C.of E.	Erythro-blastosis.
5.	2	5' 4½"	120/68	Labourer. M	80%	R.C.	Nil.
6.	6	5' 3"	118/80	Farm Worker. M	76%	C.of E.	A.P.H.sl.
7.	3	5' 1"	100/66	Transport Manager.	78%	C.of E.	Healed T.B½
8.	2½	5' 3½"	116/60	Male Nurse.	72%	C.of E.	Twins. P.E.T.
9.	8 (Br.)	5' 3"	110/60	T.V. Electrician. M	80%	C.of E.	Nil.
10.	4	5' 5½"	120/80	Metal Worker. M	90.%	C.of E.	Nil.
11.	4½	5' 1"	124/70	Farmer. M	88%	C.of E.	Nil.
12.	2	5' 5"	126/76	Policeman. M	74%	R.C.	Nil.
13.	7	5' 4½"	100/70	Fireman. M	70%	C.of S.	Nil.
14.	2	5' 5"	120/80	Soldier. M	88%	C.of E.	Erythro-blastosis.
15.	4½	5' 6"	108/70	Civil Service.	64%	C.of E.	Nil.
16.	2½	5' 5"	130/76	Farm Worker. M	90%	C.of E.	Nil.
17.	3½	5' 7"	130/78	Salesman.	90%	C.of E.	Hypertension
18.	2	5' 5"	110/70	P.O. Worker. M	88%	Meth.	Nil.
19.	2½	5' 4"	148/85	Labourer. M	94%	C.of E.	P.E.T.
20.	4	5' 4½"	120/66	Van Driver. M	75%	C.of E.	Nil.
21.	2½	5' 3½"	130/80	Garage Prop.	78%	C.of E.	Nil.
22.	3	5' 3"	110/70	Costing Clerk.	90%	C.of E.	Nil.
23.	3	5' 3"	120/80	Clerk.	84%	R.C.	Nil.
24.	5½.illig.	5' 2¼"	120/80	Shop Assistant. M	84%	C.of E.	Nil.
25.	3½	5' 3"	115/75	Engineer. M	82%	C.of S.	Nil.
Total:		133' 3½"	140/90 + Nil.		Total: 2044	3 R.C.	
Average:		5' 4"			Average: 82%	2 C.of S.	
0 Under		5' 0"				2 Meth.	
						18 C.of E.	

9 booked on or after 4th month.

Manual Worker: M = 18.
Non Manual Worker: 7.

7 Ante Natal Complications.

Read Trained Multigravidae.

No.	Time of booking in mths.	Height.	B.P. (1st visit)	Husband's Occupation.	Hb. (1st visit)	Religion.	Pregnancy Complications
1.	3	5' 3"	130/80	Civil Servant.	96%	C.of E.	Nil.
2.	3	5' 6"	124/74	Salesman.	90%	C.of E.	Nil.
3.	3½	5' 5"	120/70	Cashier.	82%	C.of E.	Nil.
4.	2	5' 7"	120/70	Teacher.	90%	R.C.	Nil.
5.	3	5' 3"	130/75	Farmer. M	84%	C.of E.	Nil.
6.	3	5' 3"	120/75	Storeman. M	104%	C.of E.	Nil.
7.	2½	5' 5"	120/68	Joiner. M	92%	C.of E.	P.E.T., A.R.M. F.T.
8.	5½	5' 0"	118/68	Insurance Agent.	70%	C.of E.	Anaemia.
9.	2½	4'11¾"	120/70	Storeman. M	88%	R.C.	Nil.
10.	2	5' 2"	130/80	Textile Worker. M	88%	C.of E.	Nil.
11.	2½	5' 5"	130/70	Soldier. M	92%	C.of E.	Cardiac. Stage I.
12.	3	5' 2½"	130/74	Driver. M	96%	C.of E.	Nil.
13.	2½	5' 3"	110/68	Engineer. M	88%	C.of E.	Nil.
14.	3	5' 5"	118/80	Inspector G.P.O.	84%	C.of E.	Nil.
15.	3	5' 5"	120/70	Engineer. M	102%	Free Ch.	Nil.
16.	3	4'11½"	120/74	Draughtsman.	96%	C.of E.	Nil.
17.	2½	5' 3½"	120/70	Clerk.	84%	C.of E.	Nil.
18.	3	5' 4"	130/70	Policeman. M	74%	C.of E.	Nil.
19.	3½	5' 4"	120/68	Plumber. M	94%	C.of E.	Nil.
20.	3	5' 0"	120/88	Motor Mechanic. M	86%	C.of E.	Nil.
21.	3½	5' 5½"	118/60	Traveller.	86%	R.C.	Nil.
22.	4	5' 7"	120/80	Butcher. M	70%	R.C.	Nil.
23.	4½	5' 3½"	120/64	Labourer. M	74%	C.of E.	Anaemia.
24.	2	5' 1½"	110/68	Manager, Biscuit Works.	76%	Congreg.	Nil.
25.	3	5' 4¼"	130/80	Farm Labourer. M	86%	Pres.	Nil.
	Total:	132' 3"	140/90 + Nil.	Total:	2172	4 R.C.	
	Average:	5' 3"		Average:	87%.	0 Meth.	
		2 under 5' 0".				18 C.of E.	
						3 Others.	

3 booked on or after 4th month.

Manual Worker: M = 15
Non Manual Worker: 10

4 Ante Natal Complications.

Social Factors.

	Husband's Occupation.		Illegitimacy.	Booked on or after 4th mth. of preg.	Private pats.	Religion.			
	Manual.	Non Manual.				R.C.	Meth.	C. of S.	C. of E
Hypnosis Group.	14	11	-	6	9	2	-	1	22
Control Group.	18	7	1	9	1	3	2	2	18
Read Group.	15	10	-	3	-	4	-	3	18

The control group did have a slightly larger proportion of manual workers, and the hypnosis group a larger number of private patients, but there were no significant social differences in the three groups to influence their labours.

The physical and obstetrical factors were also compared.

	Hypertension. 140/90 or more at 1st visit.	Average Hb. at 1st visit.	No. with Hb. below 75%.	No. of A.N. complics.	Av. Ht.	No. shorter than 5 ft.	No of babies of less than 6 lbs.
Hypnosis Group.	-	83%	3	7	5'4"	1	3
Control Group.	-	82%	4	7	5'4"	-	2
Read Group.	-	87%	4	4	5'3"	2	1

All three groups were very similar in the factors assessed. As in the primigravidae there is a marked lessening of the need for analgesia in the first and second stages of labour in the group taught auto-hypnosis, 15 or 60% of the hypnosis group requiring no chemical analgesia at all throughout their labour, whereas every one of the control or Read trained group required some chemical analgesia. This finding of the reduced need for chemical analgesia is confirmed by all workers who have reported

confinements conducted with hypnosis. They do not, however, find any marked diminution of the duration of labour in multigravidæ in the reported series, for example in August's series (18) the multigravidæ showed a slight diminution in the length of labour in hypnosis trained patients, 7.38 hours compared with 8.1 hours in the controls. Abramson and Heron (7) in 38 multigravidæ found the duration of labour diminished by 1.38 hours as compared with 36 controls. Michael (10) found no difference in the length of labour of 24 multigravidae trained with hypnosis (10 hours 45 minutes) compared with 24 controls (average labour of 10 hours 58 minutes). Winkelstein (17) also found no difference in the duration of labour in his multigravid hypnotically trained patients. Their average length of labour was 4.15 hours compared with 4.27 hours in the controls. However, in my series there was a shortening of the first stage of labour, an average duration of 6 hours 21 minutes in the hypnosis group, 9 hours 45 minutes in the controls and 9 hours 16 minutes in the Read trained group.

The episiotomy or tear rate in this multigravid hypnosis group was found to be the same as the controls 44%, the average size of baby being 7 lbs. 6 ozs., in the hypnosis group and 7 lbs. 10 ozs. in the controls. The Read trained group had a higher perineal laceration rate 72% but the average size of the babies in this group was slightly larger, 7 lbs. 13 ozs.

As in the primigravid hypnosis group, this group of multiparous patients trained in auto-hypnosis did best when the obstetrician-hypnotist was with them in part of their labour to re-inforce the trance as is shown in the following tables:-

Multigravidae Auto-hypnosis trained patients.

	No. of cases.	Average age.	Average duration of 1st stage	Average duration. of total labour.	Epis or Tear rate.
Hypnotist present in the labour.	13	30 yrs. 3 mths.	4 hrs. 59 mins.	5 hrs. 32 mins.	5 or 39%.
Hypnotist not present in the labour.	12	33 yrs. 6 mths.	7 hrs. 49 mins.	8 hrs. 26 mins.	6 or 50%.

	Required Analgesia in 1st stage.	Required Analgesia in 2nd stage.	Required Analgesia for suturing.
Hypnotist present in the labour.	2 or 15%	2 or 15%	1 or 7%.
Hypnotist not present in the labour.	2 or 17%	3 or 25%	3 or 25%

Comparing the labours of 70 women
(mixed primigravid & multigravid)
taught auto-hypnosis
with the labours of 70 controls
and 70 patients trained by
Read's relaxation method.

Comparing the labours of 70 women (mixed primigravid and multigravid) taught auto-hypnosis with the labours of 70 controls and 70 patients trained by Read's relaxation method.

	Average age	Hours in labour. Average.	Average Blood loss	Average Baby's weight.
Auto-hypnosis Group.	29 yrs. 4 mths.	9 hrs. 2 mins.	7.8 oz.	7 lb. 3 oz.
Control Group	24 yrs. 11 mths.	15 hrs. 34 mins.	9.2 oz.	7 lbs. 6 oz.
Group trained by Read's method	26 yrs. 1 mth	14 hrs. 23 mins.	8.7 oz.	7 lb. 8 oz.

Analgesics required in labour.

a) Before delivery.

	None	Gas & air ∓ Welldorm	Pethidine ∓ Gas & air.	Pethidine + a barbit. or opiate & Gas & air.
Auto-hypnosis Group.	47 (67%)	4	15	2 + (1 had Scopolomine only. (1 had Morphia gr. 1/6 only.
Control Group	3 (4%)	27	30	10
Read trained Group.	3 (4%)	25	30	12

b) For delivery.

	No analgesia.	Gas & air or trilene	Pudendal block.	General Anaes.
Auto-hypnosis Group.	60 (86%)	5	4	1
Control Group	7 (10%)	61	2	0
Read trained Group.	5 (7%)	56	8	1

Perineal Suture.

	No. requiring suture.	No. requiring local anaesthesia for repair.
Auto-hypnosis Group.	36 (51%)	17
Control Group.	45 (64%)	45
Read trained Group.	51 (73%)	51

These tables show clearly the advantages to the auto-hypnosis trained group of an average length of labour shortened by nearly half, 9 hours 2 minutes, as compared with 15 hours 34 minutes in the 70 controls, and 14 hours 23 minutes in the Read trained group; the reduced need for chemical analgesia, 41 or 59% of the trained patients requiring no analgesia other than hypnosis, whereas in the controls only 1 patient or 1.4% required no analgesia throughout the labour, and in the Read trained group all patients required some analgesia in labour. Blood loss in the third stage was similar in the hypnosis, control and Read trained groups, 7.8 ozs., 9.2 ozs., and 8.7 ozs.

The perineal tear rate was least in the older hypnosis group, 51% compared with 64% in the control group and 73% in the Read trained group. The differences in the tear rate are not, however, statistically significant.

Auto-hypnosis Group (70 patients).

When the obstetrician hypnotist is present at the labour there is a much better response as is shown by the following table:-

Mixed Primigravidae and Multigravidae trained ante-natally in auto-hypnosis.

	No. of cases.	Average age	Average duration of 1st stage.	Average duration of total labour.	Epis. or tear rate.
Hypnotist present at the labour.	35	30 yrs. 5 mths.	6 hours.	6 hrs. 53 mins.	15 or 43%.
Hypnotist not present at the labour.	35	28 yrs. 4 mths.	10 hours.	11 hrs. 3 mins.	20 or 57%.

	Required Analgesia in 1st stage.	Required Analgesia in 2nd stage.	Required Analgesia for suturing.
Hypnotist present at the labour.	5 or 14%	2 or 6%	5 or 14%
Hypnotist not present at the labour.	14 or 40%	9 or 26%	7 or 20%

In equal groups of a similar average age, the duration of labour was significantly less in the group of auto-hypnosis patients where the obstetrician-hypnotist was present in the labour, i.e. 6 hours 53 minutes as compared with the other half of the auto-hypnosis trained patients where the average duration of labour was 11 hours 3 minutes. Again the shortening was in the first stage of the labour. The analgesic requirements were also markedly diminished as would be expected when the trance could be re-inforced by the hypnotist. Thus only 16% required an analgesic in labour where the hypnotist was present for at least part of the labour, whereas 27% of those in which the hypnotist was not present required some chemical analgesia.

Analysis of Subjective Impressions of

70 auto-hypnosis trained patients,

70 controls and 70 ~~primigravidae~~ patients

trained by Read's method.

Analysis of the subjective impressions of auto-hypnosis in pregnancy and labour.

It is difficult to get an accurate assessment of patients' impressions. A questionnaire was sent to each of the hypnosis trained patients, and the patients who had attended physiotherapy relaxation classes, and the relevant questions put to the control series. From the 70 hypnosis patients the following replies were obtained.

1. Do you remember:-

(a) Everything that happened during labour?	33
(b) Only some of the incidents?	27
(c) Nothing of the whole labour?	10

2. Do you remember feeling any pain:-

(a) During the earlier part of the labour?	(a) None	32
	(b) Slight	22
	(c) Moderate	12
	(d) Severe	4
(b) Towards the end of labour?	(a) None	17
	(b) Slight	20
	(c) Moderate	19
	(d) Severe	14

3. Was the experience of having your baby	(a) Pleasant	49
	(b) Unpleasant	7
	(c) A doubtful pleasure.	14

4. How do you feel about having more children?

(a) Keen	59
(b) Not keen	9
(c) Definitely against	2

If not keen or against what is the reason?

Of the 9 "not keen", the reason given in 5 cases was "I am too old, being over forty". 2 felt they had enough children already, and only 2 gave the reason "dislike of labour". Of the 2 definitely against further children, both gave the reason that their families were already large enough. Every one of the 70 patients commented on the help the hypnosis relaxation had been both in pregnancy and labour.

Some of the remarks are quoted below:-

"Having my little boy was the most wonderful experience of my life, entirely due to the relaxation classes".

"I found being able to relax completely a wonderful help, the difference between this and my last confinement was amazing".

"My experience of relaxation both in pregnancy and labour was most helpful. After each relaxation period during pregnancy I found a great easing of tension both physically and mentally. During labour I didn't find relaxing very easy, but must have relaxed as the birth was so much quicker, easier and more pleasant than the last time".

"The relaxation classes were of use during pregnancy in that I looked forward to my labour without fear. Although I could relax in the classes, I found it impossible to concentrate during labour with all the preparations for delivery, bath, enema, etc".

"I think relaxation helped me a great deal, together with understanding what was going to happen. I think all expectant mothers should be taught this".

"I found the relaxation a great help at nights during my pregnancy, and in labour, particularly in the first stage" .

"Without the relaxation classes I am sure I wouldn't have had such an easy painless birth. Having this baby was the most wonderful experience of my life and I am very grateful".

"I don't remember much about the labour, but the feeling of achievement and elation after the birth was outstanding, and I am looking forward to having another baby".

"I felt no pain in labour, only an internal stretching sensation and heaviness. There was no pain at all at the moment of birth, only pleasure".

"This was by far the most pleasant birth of my five children. I would recommend relaxation to anyone".

"My baby will be a year old in March, and prior to her birth I attended your deep relaxation classes. As the time for my confinement drew near, I felt very confident, calm and happy, looking forward to the event with great assurance and peace of mind. Normally I am the type of person who becomes tense and apprehensive before any event, of importance or otherwise, and feel firmly convinced that the help I had from you has a great deal to do with my baby's good nature, she is exceptionally placid and only cries when something is really wrong. Everyone who sees her remarks about how contented she is and I am certain this is not just good luck but mainly due to my peace of mind before her birth".

As can be seen from the above there was no doubt in the patients' minds that relaxation auto-hypnosis training was helpful both in pregnancy and labour.

Comparison of Subjective impressions in labour in the 3 groups of 70 patients.

	Hypnosis Group.		Control Group.		Physiotherapy Group.	
		%		%		%
1. Memory of (a) the whole of labour.	33	47	66	94	58	83
(b) part of labour.	27	39	4	6	10	14
(c) none of labour.	10	14	0	0	2	3
2. Pain felt in first stage.						
(a) None	32	46	3	4	6	8
(b) Slight	22	31	16	23	25	36
(c) Moderate	12	17	33	47	32	46
(d) Severe	4	6	18	26	7	10
3. Pain felt in second stage.						
(a) None	17	24	2	3	0	0
(b) Slight	20	29	2	3	2	3
(c) Moderate	19	27	20	29	19	27
(d) Severe	14	20	46	65	49	70
4. Was labour						
(a) Pleasant	49	70	23	33	16	23
(b) Unpleasant	7	10	17	24	24	34
(c) Not sure	14	20	30	43	30	43
5. What about having more children?						
Are you(a) Keen	59	84	35	50	31	44
(b) Not keen	9	13	22	31	36	52
(c) Definitely against.	2	3	13	19	3	4
Reasons for 5b or c.						
Labour was too unpleasant.	2	3	9	13	14	20
Family large enough.	4	6	23	33	22	31
Age (Over 40)	7	10	3	4	3	4

Even if there had been no shortening of the length of labour, or diminution of the amount of analgesics required, the time spent on teaching these patients relaxation and auto-hypnosis, a total of about one-and-a-half hours per group of six patients would have been well spent, as it gave them a happy and confident pregnancy, and a feeling of pleasure and achievement in labour, so that 37 or 53% felt no pain or only slight pain in any part of the labour. 49 or 70% described labour as a pleasant experience and only 7 or 10% found labour unpleasant. 84% were keen to have another child, and of the rest all except two gave their reasons for not wanting another as age or size of family, so that in only 2 cases did the experience of labour make her "not very keen to have another".

This shows a very different picture from that given by the 70 patients with no relaxation training, where 4 or 6% felt no pain or only slight pain in labour. 33% described labour as a pleasant sensation, and 24% found labour unpleasant, and 26% of those not wanting another child gave the labour as their reason.

In the physiotherapy group trained by Read's method the subjective impressions of the patients in the first stage of labour lie between the auto-hypnosis group and the controls, but in the second stage physiotherapy training did not appear to alleviate pain, or make the labour seem more pleasant to the patient. Amnesia complete or partial was obtained in 53% of the hypnosis group, and in 17% of the physiotherapy group. No pain in the first stage was felt by 46% of hypnosis patients, 8% of physiotherapy patients and 4% of controls. No pain was felt in the second stage by 24% of hypnosis patients, 3% of controls, but in the physiotherapy group all felt some pain, the second stage pain being described as severe in 20% of hypnosis patients, 70% of physiotherapy patients, and 65% of controls.

Perhaps the greatest subjective gain is that in the auto-hypnosis

group 70% described the labour as pleasant whereas only 23% of physiotherapy patients looked back on it as pleasant, and 33% of controls. 84% of hypnosis patients were keen to have another child, and of those that were not anxious to have more children in all except 2 cases or 3% it was for reasons of age or large enough family, whereas in the physiotherapy group 44% were keen to have another, and of those who were not keen to have another child, 14 or 20% gave their reason as the experience of labour. In the control group 50% were keen to have another child and of those who were not 9 or 13% gave the reason as their labour experience.

Perchard (19) assessed the subjective impressions of 400 hypnotically trained primigravidae. 48% of his group felt little or no pain in labour (53% in my series). Amnesia was complete in 20% (14% in mine), partial in 45% (39% in mine) and no amnesia occurred in 35% (47% in my series). Labour was recorded as a pleasant experience in 46% of Perchard's cases (70% in mine) and as unpleasant in 17% (10% in mine), and the rest were not sure.

From these subjective impressions it can be seen that far less pain was felt by the patients trained in auto-hypnosis in the first and second stages of labour, than by either of the control groups. That 70% of the hypnosis group thought of labour as a pleasant experience and looked forward to repeating it, whereas only 33% of controls thought labour pleasant.

THREE ILLUSTRATIVE CASE HISTORIES

OF PATIENTS DELIVERED UNDER AUTO-HYPNOSIS.

Illustrative case histories.

1. Mrs. Helen Dunne. Aged 25 years. Primigravida.

Anxious type of patient who had suffered from severe dysmenorrhoea until her pregnancy. First seen at 10 weeks when pregnancy confirmed. Patient then moved to Manchester. Next seen at 32 weeks when patient decided to have her baby in Carlisle as had no friends in Manchester. Said she was terrified of the dark and of injections and very frightened of labour. Offered hypnosis and gladly accepted. This was my first patient who fortunately proved to be a deep trance type. A deep trance was obtained at the first session, and suggestions were given that her heartburn and evening sickness would improve and disappear. Both stopped the next day and did not recur. At the third session she was regressed in time to age six when she re-enacted a scene of fear, when as a child she had had an inoculation at school, and had had to queue up for it, and the children in front and behind her were crying and she was terrified. She was reassured and told that she would no longer fear pricks or the dark. On awakening from the trance the patient immediately said "now I don't mind you taking my blood, and I will go tomorrow and have my polio prick". I proceeded to take off blood for rhesus and ABO grouping and haemoglobin without any distress in the patient. She was also able from that night to turn off the light and go to sleep in the flat alone, when her husband, a newspaper photographer was late; previously, because of her fear of the dark, all the lights in the passages and bedroom had to remain on till he returned. A total of five relaxation sessions were given, and auto-hypnosis was taught at the fourth session.

At 3 a.m. on 16.12.58 labour started. The cervical canal was one inch long, the os closed. The head was engaged in the right occipito lateral position. The pelvis was adequate. The patient

put herself to sleep after an enema and slept until 11.30 a.m. when the os was found to be two fingers dilated. The patient had lunch and again put herself into a trance and slept till 2.30 p.m. when the head was visible at the vulva. She was encouraged to push but advance was slow, and after each contraction the head appeared to be pulled back. A short cord was diagnosed and under hypnosis low re-inforced forceps were applied, an episiotomy performed, and the baby's head delivered. The cord was looped tightly over the baby's shoulder and was clamped and cut and the baby then delivered, an 8.8 lb. male child in good condition. The third stage lasted ten minutes, and the blood loss was 8 oz, the total length of labour being 12½ hours. 10 cc. local anaesthetic were put into the perineum for repair of the episiotomy. This was not really necessary, but being my first case of hypnosis I could not quite believe how effective it was. The patient was happy and delighted with her labour, and said she was quite ready to have another baby tomorrow! Breast feeding was satisfactory, and the patient had an uncomplicated puerperium.

At the post natal visit the patient put herself into a trance, and I told her that the need for deep relaxation was now passed, and in future no-one but a doctor for medical purposes would be able to "relax" her, thus safeguarding her as a trained subject against unorthodox hypnotists.

Summary.

This case illustrates a deep trance patient in which hypnosis was used for:

1. Symptom removal of heartburn, evening sickness, fear of labour and the dark, pain in labour. No other analgesia was required in labour or for the low forceps delivery.
2. For hypno-analysis to find the cause of her fear of needle pricks by age regression, to remove the fear by reassurance and explanation.

2. Mrs. Annie McCrone. Aged 40 years. Primigravida.

A nervous patient first seen in 1953 after nine years of marriage which had not been consummated because of pain and tension. A Fenton's plastic dilatation of the vagina was carried out, and intercourse was thereafter satisfactory. Next seen on 21.11.58 and found to be 8 weeks pregnant after fourteen years of marriage and now aged forty. Patient anxious and afraid of labour, offered hypnosis and accepted gladly. She was a medium trance patient and given her first lesson at 14 weeks, she complained of severe nausea that had not responded to Avomine or Dramamine therapy, and was given a post-hypnotic suggestion that nausea would improve and disappear. The following day she had no nausea, and it did not recur. At her next ante-natal visit at 18 weeks she stated that she was worried about breast feeding as the idea of it disgusted her. At the next and subsequent relaxation sessions she was told that breast feeding was the normal and natural way to feed the baby and give it the best start in life, and that she would find it easy and pleasant. At the next visit she was asked how she felt about breast feeding, and stated that she was no longer worried or upset by the idea, and would like to try. In fact in the puerperium she fed her baby easily and enjoyed doing so, and was still breast feeding at the time of her post natal visit. She had in all eight hypnosis sessions, being taught auto-hypnosis at her fifth, and from the 36th week had her ante natal examinations, including pelvic assessment done when in an anto-hypnotic trance, so that she became used to examinations without wakening.

She went into labour at 39 weeks with spontaneous rupture of the membranes and the child presenting as a vertex right occipito-posterior. The first stage lasted 11¼ hours and at three fingers dilatation she was given 1/300 gr. Scopolomine. The second stage lasted 1 hour and she had a spontaneous delivery of a living male

child weighing 6.14 lbs. There was no tear and no analgesia was required for the delivery except hypnosis. The total length of labour was 12½ hours and 10 oz. blood were lost in the third stage. The patient had partial amnesia of labour. She remembered with delight the actual delivery of the child and hearing him cry. She stated she would have another baby any day and it was all much easier and pleasanter than she had believed possible.

At her post natal visit a final auto-hypnotic trance was induced and the post-hypnotic suggestion given that only a doctor for medical purposes would be able to induce a trance in future.

Summary.

This case illustrates a medium trance patient in whom hypnosis was used for symptom removal of nausea, dislike of breast feeding and fear of labour. By self induced analgesia complete comfort in labour was achieved with only 1/300 gr. Scopolomine and no extra analgesia was required for the delivery. There was no re-inforcement of the trance in labour by the obstetrician-hypnotist.

3. Mrs. Patricia Thomas. Aged 28 years.

First reported in March 1959 when four months pregnant. She was very anxious as she had had one previous pregnancy which had been complicated by sudden toxaemia at 36 weeks with a concealed accidental haemorrhage and a stillborn child nine months previously. She was very worried lest the same happen again, tearful and sleepless. She, herself, asked for hypnosis training. She was found to be a medium trance patient. Five hypnotic sessions were given, auto-hypnosis achieved at the third. At each session she was reassured and encouraged, and symptom removal of fear, insomnia, headaches and nausea was obtained by post hypnotic suggestion. All improved and disappeared by the third session. Ante-natal examinations from the 34th week were done under hypnosis, including pelvic assessment.

At 41 weeks she had a medical induction. She went into labour, and after $4\frac{1}{2}$ hours had an easy spontaneous delivery of a 7.1 lb. female child. No extra analgesia was required in labour or for the delivery. There was no perineal tear and the third stage loss was minimal, 1 oz. The mother said she enjoyed her labour, in fact "loved it", she felt no pain, only a sensation of stretching at the end, and she said "the total discomfort was less than an ordinary headache".

At the post natal examination breast feeding was satisfactory, and a post hypnotic suggestion given that only a doctor for medical purposes would be able to induce a trance in her in future.

Summary.

Hypnosis was used for symptom removal in pregnancy of fear of a stillbirth, sleeplessness, headaches and nausea. In labour auto-hypnosis was used for producing complete analgesia. The trance was re-inforced by the obstetrician-hypnotist at the end of the second stage.

C O N C L U S I O N S.

Conclusions. (general)

The disadvantages and advantages of hypnosis used in childbirth may be summarised as follows:-

Disadvantages.

1. Time and effort must be expended by doctor and patient.
2. Not all patients are susceptible (at least 90% are to some extent, and 25% are really good).
3. Not all doctors are suitable or willing to use this technique, and extravagant and unfounded claims by some of its ardent proponents increases the opposition.
4. Some lay people feel there is a stigma to hypnosis. Sensationalism in its application in the field of entertainment accounts for much of this.
5. It is unsuitable for use in psychotic patients.
6. The disadvantage of dependency of the patient on the obstetrician-hypnotist is abolished by the use of auto-hypnosis and suggestions of independence.
7. It cannot supplant chemo-anaesthesia, but can help to reduce its need.

Advantages.

1. It is not a complicated procedure.
2. No apparatus or expense is involved.
3. In pregnancy positive suggestions can be used for symptom removal or amelioration of nausea, vomiting, heartburn, insomnia, constipation: Also reassurance and removal of the fear and apprehension of labour: and suggestions to improve puerperal lactation can be used.
4. In labour patients are calm, quiet and relaxed.
5. There is no increase in operative delivery reported.

6. Hypnosis analgesia is easily controlled, unlike chemical analgesia.

7. The need for chemical analgesia or anaesthesia is abolished or diminished, with diminished risk therefore of maternal or foetal anoxia.

8. There is no respiratory or circulatory depression of mother or child with hypnosis and therefore less risk of anoxia, asphyxia or cerebral damage.

9. Hypno-analgesia can be used in patients unfit for chemical analgesia.

10. There is an increased resistance to fatigue, and therefore to obstetric shock, and the pain threshold can be raised by conditioning the patient against fear and surprise.

11. Complete relaxation of the perineum can be obtained on command, and therefore there is less tendency for the perineum to tear.

12. The patient can experience the sensations of childbirth with little or no pain; the mother-child relationship is therefore retained, and in fact enhanced, as the mother with pleasant memories of childbirth has no cause, consciously or unconsciously to blame the baby for her suffering.

13. The duration of labour may be shortened.

14. The majority of patients look back on their labour as a pleasant and happy experience, to be enjoyed again in the future.

Experimental Conclusions.

In this reported series of 70 patients personally trained in auto-hypnosis for childbirth it has been shown that:-

1. During pregnancy, fear and apprehension of labour could be abolished, and the minor discomforts of pregnancy helped or eliminated; therefore the earlier in pregnancy the patient starts her hypnosis training the better.

2. That the average duration of labour was significantly reduced (9 hrs. 2 mins.) as compared with a control group (15 hrs. 34 mins.) and a group trained in physiotherapy relaxation (14 hrs. 23 mins), in spite of the hypnosis group having a higher average age (29 years 4 months) than the controls (24 years 11 months), and physiotherapy group (26 years 1 month). All the reduction in time occurred in the first stage of the labour, & the difference between the auto-hypnosis & control group was very significant. ($p < .001$.)

3. That hypnosis is a far more effective analgesic agent both objectively and subjectively, than Read's physiotherapy relaxation method of childbirth, or simple mothercraft education as was given to the control group, and that therefore significantly less drug or chemical analgesia was required by the auto-hypnosis trained patients. (59% required no chemical analgesia in labour, whereas in the control group only 1.4% had no analgesic drug) and in the physiotherapy group all required a chemical analgesic. Statistically the difference was very significant. ($p < .001$)

4. No significant difference in the third stage blood loss was found in the hypnosis group as compared with the control groups (an average of 7.8 oz. as compared with 9.2 oz. and 8.7 oz. in the controls).

5. The tear or episiotomy rate was less in the hypnotically relaxed patients, 51% as compared with 64% in the control group, but this difference was not statistically significant. ($p = .10 - .20$.) In the physiotherapy group 73% required sutures.

6. The operative delivery rate was not increased. 9 required forceps in the hypnosis group, but 2 for short cords. 2 required forceps in the control group and 10 in the Read trained physiotherapy group.

7. The subjective impression of labour was much more pleasant in the auto-hypnosis group, 70% describing labour as a pleasant experience, (33% in the controls and 23% in the physiotherapy group), and an experience to be enjoyed again in the future. Statistically the difference was very significant between the hypnosis group and the controls. ($p < .001$)

8. No difficulties or psychological dangers were encountered in this series of 70 auto-hypnosis trained patients.

9. The best results are obtained if the obstetrician-hypnotist is present at the beginning of labour, at the end of the first stage and the end of the second stage, to re-inforce the trance. If the care of the patient trained in auto-hypnosis is delegated to others during labour, the results are less satisfactory but still much better than if there had been no ante-natal hypnosis training. Better results are obtained when the nursing staff became familiar with the difference between an hypnotically unconscious patient and a chemically drugged one. Questions, noise and examinations should be reduced to a minimum, and quiet explanation of any manipulation given, with suggestions of relaxation and sleep at the same time.
The ideal person in hospital practice to use this art would be the interested resident Registrar.

10. The time spent ante-natally, (one-and-a-half hours for six patients), and the personal attention involved are well worth while to produce such objective and subjective benefits to the pregnant woman, and hypnosis should be used more widely than it is at present.

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